

# MANUFACTURERS' RECORD

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RICHARD H. EDMONDS, President.  
THOMAS P. GRASTY, Vice-President.  
FRANK GOULD, Secretary.  
VICTOR H. POWER, Treasurer.

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RICHARD H. EDMONDS,  
Editor and General Manager.

THOMAS P. GRASTY,  
General Staff Correspondent.

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BALTIMORE, MAY 26, 1904.

### THE ST. LOUIS EXPOSITION.

The Manufacturers' Record will be represented at the exposition by Mr. Albert Phenix, its Southwestern representative, with office in the Missouri Trust Building.

### LET HIS HONOR SET THE EXAMPLE.

One member of Baltimore's Burnt District Commission has decided to resign. For this Heaven be praised. In the depths of its despondency at the incompetency of the municipal authorities Baltimore is grateful for even so small a favor as this. It is true that the member who is resigning is probably the best of the lot, but it would practically be impossible even for a giant in energy and ability to accomplish much against the dead weight of the prevailing conditions that would hang around his neck.

The situation which Baltimore faces today is a more serious one than it faced the morning after the fire. Then it simply had to face the destruction of its business center, the upsetting of business conditions and the great financial loss. Every day since then there has been growing upon the business people of this community the appreciation of the fact that it is facing an incompetency vastly more damaging than the great fire. From the very beginning the Manufacturers' Record foresaw these conditions and strenuously urged that the business people of the city should take hold of the matter. By many it was thought that we were unduly alarmed; that as Baltimore's merchants and manufacturers had with wonderful celerity met the emergency and opened up for business within a day or two after the fire, surely the municipal authorities would likewise prove

equal to the occasion. They thought that great responsibilities develop great men, and thus they thought it possible that such an emergency as this—one in which the very life of the city is at stake—would develop in municipal affairs some men equal to the occasion; but the Manufacturers' Record, studying very carefully the work of the first few days, measuring with an absolutely unprejudiced eye the situation, came to the conclusion that the debris in the City Hall was a far greater menace to the city than the debris in the burnt district; that unless the former could be removed the latter never would be. Every day since has demonstrated the accuracy of that judgment, and as week by week and month by month has passed, the people at large are now awakening to the fact that the intolerable delays in carrying out plans for the widening of the streets, for the purchase of the property necessary thereto and the intolerable delays and obstructions which have harassed every man who has undertaken to do anything, stand like a stone wall, against which the business community is butting its head in vain.

The time has long since passed for mincing words. The time has come—in fact, the time came within one week after the fire—for the business people of the city—the men who have at heart its welfare as well as their own individual success—to bring upon the mayor sufficient pressure to compel him to ask for the resignation of every member of the Burnt District Commission, including himself ex officio, and then after they have gone that far, how great would be the blessing if Mayor McLane would rise to the occasion by resigning himself from the mayoralty! Then, indeed, would a weight which is dragging the city down be removed, and then, indeed, would Baltimore have an opportunity to begin the real work of cleaning up the debris and the rebuilding of the city.

Every day that passes is adding enormously to the financial loss, but greater than the immediate loss is the destruction of the energy and activity of the people and the widespread discredit which is coming upon Baltimore. Throughout the entire land every traveling salesman and every business man from any competitive city has an opportunity such as they never possessed before for holding up to ridicule a city which, unlike Chicago, or Boston, or Jacksonville, or Galveston, has utterly failed to measure up to the occasion,

and this failure is all the greater discredit since it is a failure due to the city administration from beginning to end, as incompetency seems to rule throughout every branch of it, for the Burnt District Commission seems to be but an expression of the incompetency in every department of the City Hall, with possibly here and there a rare ex-

ception. If Baltimore is to be saved no time is to be lost in bringing about the resignation of the Burnt District Commission, with no possibility of its restoration, and then hoping and praying that the mayor, with one single moment of conscious appreciation of his inability to meet the occasion, will also resign.

### COTTON BEARS AS INTERNATIONAL GAMBLERS.

In spite of the bitter lessons of the past year, the influences which instinctively seek to depress the cotton markets are preparing for probably one of the greatest raids in history. Objecting to the "gamblers," whose operations during the past two or three years have brought comfort and prosperity to millions of cotton-growers in the South, they propose to do a little "gambling" on their own account to the extent of seeking to narrow artificially the market for the raw material. This movement comes to a head in the International Conference of Cotton Spinners, scheduled to meet this week at Zurich, Switzerland. The purpose of that conference is clearly revealed by one of the prime movers in it, C. W. Macara, president of the Federation of Master Cotton Spinners' Association of England, in the leading article in the special Anglo-American number of the *Revue Economique Internationale*. Mr. Macara's proposition is that the development of the cotton industry throughout the world has become such that "an international combination to reduce the consumption of cotton is necessary if the existing position is to be effectively dealt with."

This bear movement, which is, after all, rather a chronic inclination of the buyers of raw cotton, was given form last December at a meeting of the general committee of the Federation of Master Cotton Spinners' Association, which suggested by cable to all continental and American associations of cotton spinners that the cotton trade all over the world should enter upon short time "to check speculation in the raw material." The committee took the ground that "in a crisis affecting one of the greatest staple industries of the country it is fitting that those whose capital is jeopardized and the representatives of the toiling masses, whose livelihood is at stake, should meet to calmly consider whether it is possible to devise some means to avert the terrible suffering that appears imminent through the cornering of the raw material by gamblers." The committee contended that the capital invested in the industry should earn a moderate return, and that "it is to the interest of all who are engaged in a great industry that the growers of their raw material should have adequate remuneration, otherwise the supply would not be kept up," but it undertook to decide for itself what that adequate remuneration should be by suggesting that even with a moderate yield probably the American planter would have a paying profit by selling his cotton at seven cents a pound. Mr. Macara's idea of "gambling" is well set forth in the following:

To endeavor to bring about an international union of users of cotton is a work well worthy of a serious attempt, for no combination of holders of any raw material can long stand against a combination of users of that raw material. In England during the latter part of last year, when cornering on similar lines was being carried on, the Federation of Master Cotton Spinners' Association determined to run short time, thereby reducing the demand for raw cotton. The result was that prices eventually fell, and fell not for England alone, but for all users of cotton. This Federation has always been active in dealing with matters vital to the interests of the cotton trade, but it will be admitted that it is neither fair nor reasonable that it alone should be called upon to fight the battles of the trade, and it is not too much to expect that other associations of cotton spinners should fall into line with it now, and by the combined power of an international union of cotton spinners put an end to this intolerable state of affairs which is so seriously interfering with the welfare of one of the world's greatest industries. The recognition of an absolute community of interest should clear the path of all difficulties in the way of a speedy development in the direction of international action.

Temporary expedients have had to be adopted meanwhile, and short-time running of machinery in various countries has become more and more generally recognized as a desirable and most important first step to reduce the demand for cotton, and so eventually to bring the price within such reasonable limits that spinning may become profitable again. In England, France and Belgium short time is being resorted to, and if the present working week of 40 hours in England does not sufficiently reduce the demand for cotton so as to defeat the gamblers and bring down the price, a further curtailment will probably be decided upon.

It must be remembered that the chance of the gambler lies in the margin between the actual needs of the spinner and the extent of the cotton crop. Given absolutely reliable statistics of the cotton crop of the world being equal to the demand which there will be for it, the gambler's opportunity vanishes. But unfortunately, through the present unsatisfactory sources of information, reliable statistics in regard to the extent of the crop are not obtainable, and the result is that year after year the trade is brought face to face with a repetition of the gambling evil.

Elsewhere in his article the excited lack of humor of Mr. Macara waxes as follows:

Although the American cotton crop has been nearly doubled during the past 20 years, it seems, as already indicated, that the machinery of the world for its manipulation is increasing more rapidly than the production of the raw material, and this has, at the end of several recent cotton seasons, made the work of cornering the raw material much easier than it would have been under other circumstances; but never before has there been so daring an attempt at cornering on a large scale as that which has taken place

during the last few months, and this, too, at the beginning of a new cotton season—an experience which is without parallel. The position in which cotton spinners of the world find themselves on account of the unscrupulous acts of cotton gamblers in America and elsewhere is quite without precedent in the history of this world-wide industry. Prices of American cotton have advanced to such a height, affecting sympathetically all other growths of raw cotton, that this gigantic international industry is reduced to a state bordering on paralysis. On the one hand we have the comparatively few with command of great wealth adding enormously to that wealth by cornering the raw material necessary for carrying on a great industry, and on the other hand spinners handicapped through inability to procure the raw material at a price which will enable them to run their mills profitably, the livelihood of millions of people jeopardized, workers in the cotton and allied trades forced into comparative idleness, and the price of manufactured goods raised beyond the limits of any reasonable demand.

This unwittingly frank exposition of the gambling plans of international bears is almost a sufficient commentary upon itself. Granting for the moment the confessed view of Mr. Macara that it is all right to make a combination of users of a raw material, and all wrong and unscrupulous to make a combination of holders or growers of that material, what of the economic absurdity of attempting to form an international combination of users? Imagine the flour mills of the world combining to beat down the price of wheat at a time when there was not enough wheat grown to meet the requirements of the world. Individual mills might close, preferring to lose temporarily the income on the investment rather than to buy the wheat at a price approaching the price of flour. But it is hardly possible to conceive of the mills of the world undertaking to anticipate artificially the natural adjustment of supply and demand. Such a policy would probably result in many mills never resuming operations and losing all their investments. But they certainly would have too much appreciation of humor to call their combination "taking steps to check gambling." The would-be combiners of cotton mills ought to cultivate their sense of humor. They ought to know that their plan is one which no respectable gambler would adopt. For it is a plain case of loaded dice.

It is very kind of them to assume the task of deciding what is the proper price that the millions of growers of cotton should charge for their staple. But the millions of growers, thanks to the "unscrupulous gamblers" of the past two or three years, are in a better position than ever before to play against those who would use loaded dice against them. The growers are not obliged to bluff. They have the goods to deliver. They are in a position to study developments when the international gambling bears discover that their dice are loaded on all six sides and loaded to lose.

One other point must be mentioned before leaving this subject. In January last a deputation representing the English cotton industry discussed with Balfour, the English Prime Minister, the possibility of taking steps "to check gambling in cotton." It was proposed to Balfour that the British government should undertake to summon an international congress which "might form a basis for international legislation on gambling in cotton and all other commodities." When Mr. Macara wrote his article no reply had been received to this proposition, "in consequence of Mr. Balfour's unfortunate illness and the slowness with which governments move." But under date of May 2 the Prime Minister wrote to Mr. L. V. Harcourt discussing the conference proposition, and as to "the policy or impolicy of voluntarily limiting output by agreement among manufacturers of all nations, in order that the demand for the raw material may in the future be more nearly adjusted to the supply," he said:

This, however, is a matter on which (as you will agree) it would be improper for any government to offer an opinion, or even to aid in organizing a conference which should be asked to offer an opinion.

It is unfortunate that this sense of propriety did not prevail with the American government through one of its representatives last August. Had it not been for the impropriety of Secretary Wilson's bear interview, which facts available by his Department of Agriculture should have forbid, the cotton manufacturers of New England and other parts of the country would have been saved many millions of dollars and several thousand cotton operatives would have escaped the jeopardy of their livelihood.

In denouncing as gambling the operations which had induced, to the benefit of cotton-growers, profitable prices for cotton at the beginning of a new season—"an experience which is without parallel"—Secretary Wilson confirmed the cotton bears in their determination to beat down the price and in thereby leading Eastern cotton mills to delay their purchases was responsible for the higher prices which they had to pay and for the losses which have fallen upon the thousands of operatives. What these sufferers will do for the "government," which, by its improper attempt to interfere with trade, injured its very intended special beneficiaries, the next few months will determine. In the meanwhile, the men who think that "no combination of holders of any raw material can long stand against a combination of users of that raw material" may ponder profitably upon the question of President W. C. Heath of the American Cotton Manufacturers' Association addressed to the spinners at their meeting in Washington:

Who were the greatest gamblers, they who bought what they wanted or you who sold for delivery that which you did not have?

#### BOND DEMAND INCREASING.

A good demand is reported in New York financial circles for investment bonds, the general public for the time being, at least, having turned from investments in stocks, as well as speculation therein, to the purchase of securities of the bond type. This fact should be of more than ordinary interest in the South, where a number of the cities are issuing bonds for either water-works, electric lights, street paving, fire departments, schools and other improvements and utilities of a municipal character. Counties are also issuing bonds for road and bridge improvements.

ments, courthouses, schools, etc. While these different classes of Southern securities have, with scarcely an exception, met with ready sale, the increasing demand for good investments in such a great center as New York suggests that Southern bonds might find wider circulation in the market which would yield higher premiums than those hitherto obtained. According to reports from New York, the Japanese loan is being sought by the public, and it seems reasonable to suppose that good municipal or county securities in their own country would find greater favor with investors than bonds of a nation

situated away on the other side of the globe. It appears not improbable, therefore, that a result of this increased demand for bonds will be a broadening in the investment field for Southern securities, and that the municipalities, counties and States which are about to market bonds will be enabled to make more than ever better terms in disposing of them.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 60 and 61.

#### REFORESTING PINE LANDS.

H. C. Putnam, who for 45 years has been in touch with lumbering operations in Wisconsin and who has been familiar with the timber interests of the South for 10 years, recently spent three months in the Carolinas and Florida. In an article in the Lumber Trade Journal he takes a very optimistic view of the possibilities of reforesting wide areas of cut-over pine lands, provided new growths are given half a chance, with climatic conditions unusually favorable. He cites several examples of profit in new growths, and insists that they are true of conditions in all the Southern Atlantic States. He says that, with a fire law enforced, he would sooner put a million dollars for investment in Southern pine lands, where there was some timber and the chance for more to grow, than in any other form of investment that he could think of, and that he would rather own the old fields of the South with their forest possibilities than the bonds of any railroad in the United States, viewing the matter from the standpoint of safety of the investment and the eventual sure returns. So impressed is Mr. Putnam with the possibilities of reforestation that he advocates co-operation of State and nation in the work of caring for the great pine belt extending from Virginia through the Carolinas and Georgia and through the Gulf States into Texas. He says:

It is about 2000 miles long and approximately 200 miles in width, or, in other words, it contains more than 250,000,000 acres. When I first went through this country very little of it was cut, but at the present time much is being destroyed either through carelessness or wantonness. It certainly seems desirable that the national government, which has created many reserves in the West, should turn its attention to the needs of this region—which has not a single reserve—where cheap lands, conditions of soil and climate and accessibility make it seem particularly desirable. There would be no expense other than the setting aside of the land and the patrolling of it to keep out fire, as the pine would take care of itself and be an object-lesson to all the surrounding country; in fact, the Department of Agriculture has already spent several hundreds of thousands of dollars in an effort to make tea grow in the Carolinas, while very little has been spent in tree-saving. And, so far as direct returns bear on the subject, it would seem that the trees were worth much more than the tea, and the relative expense should have been in an inverse proportion. The western and the Appalachian forest reserves are believed by many to be worthy projects, and I would add my plea for a "Southern Pine Forest Reserve," where a long-leaf, loblolly, slash or rosemary and the short-leaf pines will grow. This reserve should be about 50 miles from the coast, and might include any desired amount of land. If Congress should pass an act enabling the United States to acquire a suitable area, perhaps 100,000 acres, each State in which the lands might be could set aside the State lands suitable for the purpose and let the general government have full control over them, as in the case of the Western reserves. It would seem that the land would be made of much of the land and an invaluable lesson to the States. It would be a great element, with strong support in government circles,

is persistently urging the establishment at a comparatively small cost of a great forest reserve in the Southern Appalachians; the bureau of forestry is co-operating with owners of virgin tracts of pine lands in devising means for handling them with such practical science that they never will become old fields, but will remain permanent sources of lumber; a revolution is quietly under way in turpentine methods which have heretofore tended to hasten the disappearance of the forests, and in many other ways public opinion in the South is being trained to wisdom in handling its forest reserves. The suggestion of Mr. Putnam is rather a novel one, but none the less practical, and it is worthy of serious consideration. The general feeling, under the influence of American ideas of plenty, has been that the forests, once gone, can never be replaced. He seems to make it quite plain that with proper precautions not only may the remnants of the forest be preserved, but that through a great belt a new forest may rise.

#### The Southern Farm Magazine.

The dominance of cotton in world-industry is well indicated in an article in the June issue of the Southern Farm Magazine, in which the estimate is made that the total value of the world's manufactured cotton product is more than \$2,000,000,000 a year, while the total value annually of the output of iron and steel in the world is \$1,700,000,000. In this estimate the value of iron and steel includes merely the products of furnaces, rail mills, forges, blooming mills and the cost of the coal and iron ore, while the value of the cotton goods is the value of products of cotton mills. This article gives a comprehensive survey of the development of the cotton-mill industry in the United States since 1830, and its complement is a reproduction of the paper by J. Arthur Hutton before the British Cotton Growing Association, dwelling upon the importance of the South in cotton production. With these two papers should be read the article by R. G. Musgrove of Mississippi, protesting against the enormous waste in the handling of cotton and urging more care in its ginning. Other leading papers are by Col. J. B. Killebrew on Perique tobacco and by Capt. D. G. Purse on the possibilities of cane syrup, while the recent visit of the Ogden "educational" party to the South is briefly reviewed in jocular vein. The same attitude is assumed in the discussion of the Carnegie hero fund of the effort to organize an international society of "distinguished men" and of other fads and frailties of the present day.

Immigration is given considerable space, with special reference to the movements in several States to attract thrifty settlers, while Albert Phenix tells of the opportunities to study American agriculture at the World's Fair.

The Southern Farm Magazine is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

#### Bricks and Metal Lathing.

The Carolina Portland Cement Co., Atlanta, Ga., writes the Manufacturers' Record that it uses a large quantity of metal lathing and fancy pressed and repressed bricks of various colors, and wants to correspond with manufacturers of those products.

The Gothenburg (Sweden) Machine Co., Ltd., writes to the Manufacturers' Record that it desires to learn the bottom prices of American wrought-iron tubes and fittings.

# SPIRIT OF THE SOUTH AT JACKSONVILLE

Fire-Swept Three Years Ago—Restored and Progressive Today.

[Editorial Correspondence Manufacturers' Record.]

Jacksonville, Fla., May 23.

On May 3, 1901, Jacksonville was swept by fire, which started at midday. At 6 o'clock nothing was left standing in an area of more than 400 acres. More than 2600 houses were burned, a very large proportion of them of the better class of residences, as well as business houses, and that night 14,000 people out of a total of about 30,000 were homeless. The aggregate loss was about \$16,000,000, with insurance of \$6,000,000, leaving a net loss of about \$10,000,000. This means a gross loss of \$500 for every man, woman and child, white and black, in the city, or a net loss per capita over insurance of above \$300. The magnitude of this can be appreciated when compared with the extent of Baltimore's fire. Had the loss in Baltimore been as great in proportion to population as in Jacksonville, the gross loss would have been over \$250,000,000, the net loss beyond insurance over \$150,000,000, and 250,000, or nearly one-half of its population, would have been homeless. It was such a situation as this that Jacksonville faced on the night of May 3, 1901. How did it meet the emergency?

We have been told over and over that the Southern climate is enervating, and that the Southern people lack the vim and energy of those who are blessed, if they so esteem it a blessing, with a climate where winter lasts nine months in the year, and where the other three months are generally much hotter than the South ever knows. When against such statements as these is placed the wonderful record of what the South has accomplished we are told that Northern energy has brought about this development. With the fullest appreciation of what Northern energy has done, with a great regret that we have not in the South 10 times as many Northern and Western people as we have, it is but fair to this section—and every honest, fair-minded Northern man will so admit—to look at both sides of such a proposition. In the entire South less than 5 per cent. of the population is not native-born. In Florida only 8 per cent. is not Southern-born, the great influx of population into that State being from other Southern States, mainly from North Carolina and Georgia. In the broader discussion of this question it is also fair to the South, and thus fair to all fair-minded men, to repeat the statement which the Manufacturers' Record has often made, that while there are in the entire South 750,000 people who were born outside of the South, there are living in other sections 1,500,000 Southern-born whites. Thus we have given to other sections two for every one we have received, and in energy and activity the Southern men who are leading in finance, in railroad work, in manufactures and in general business operations in the North, in the West and on the Pacific coast are the equal of any other people in the country. And so let us give to Jacksonville the credit for what it has done, with full credit to the people of the South, as well as to the people of the North, for their share, for Jacksonville as it stands today is a typical city of the South, thrilled with the same energy and hope which inspires every part of the South and dominated by the same element which is dominant in every town from Maryland to Texas.

The morning after the fire Jacksonville faced a situation before which the stoutest heart might well have been appalled, for, unlike the Baltimore fire, which was confined to the business district, the Jackson-

ville fire swept away residences and business houses alike. Three years have passed, and except for the destruction of the beautiful shade trees which lined the streets of the city, it is a far greater and far more attractive city than before the fire. The old houses have been replaced by new and modern structures. Where 2600 houses then stood there are now considerably over 3000, costing nearly \$25,000,000. Business of every kind has expanded, men have taken broader views of Jacksonville and its future and of the whole State, and during my stay here I have not been able to find a single pessimist. Optimism rules everywhere. Stir, activity and life are in the air. In the hotels, in the club, everywhere, men are talking of the prosperity of the State, of the great development in diversified agriculture, of the phenomenal profits which are being made in early vegetables—profits surpassing the stories told about the fortunes made in fruit-growing in California. When the great freeze practically destroyed the orange industry of the State it was supposed that Florida had received a blow from which it might never fully recover. On the contrary, it is today regarded by almost everyone in the State except the immediate losers by the freeze as a great blessing. It turned the attention of the people from oranges, on which all interest was being centered and on which the prosperity of the State was then staked, to diversified farming, to pineapples, tomatoes, potatoes, strawberries, celery and many other things which are yielding profits that sometimes read almost like a fairy tale, but which are proven by bank accounts. Moreover, with a better understanding of the orange business, and with a knowledge of the fact that once in a long period there may come another destructive freeze, the growers have adopted better methods and are better able to protect their trees should it ever come. For the first few years after the freeze this industry languished, but gradually men of energy took hold of it again, and orange-growing promises to prove as great in extent and far more profitable than it was before, the estimate of some being that this year's crop will reach 3,000,000 boxes. It is by no means improbable that below the frost line there will be developed an orange industry rivaling that of California, where 9,000,000 boxes are now raised. But the entire orange business in Florida might be destroyed, and still the State would become one of the most prosperous in the Union. With its diversity of soil, its great lumber and turpentine interests, its phosphate business, its charm of climate for winter tourists, it has outside of the orange business sources of wealth sufficient to bring an abundant harvest of prosperity. It is just beginning its real development, just beginning to command the attention of the outside world, and its own people are just beginning to realize the greatness of their opportunities.

But coming back to Jacksonville. The spirit of the town is illustrated in the Board of Trade, an organization intended not for trading purposes, but which has been formed for the exclusive object of the general advancement of the city. The annual dues are \$20, and in a town of 35,000 people it has about 400 members. After the fire it was decided to erect a handsome Board of Trade building at a cost of \$50,000, and bonds for this amount were promptly taken by the members. The new building is a very attractive structure, with a main hall intended for special

meetings with a capacity for seating 500 to 600 people. It is proposed to enlist the co-operation of the good women of the city by giving in this room three or four public meeting or receptions a year, to which the women will be welcomed. At the opening of the Board of Trade building on May 18 probably one-half of the audience were ladies. Rents from portions of the building not needed for the purposes of the board pay the interest on the bonds, taxes, etc., and leave some surplus towards the general work of the organization. The spirit of this body, live, active, energetic, always doing things for the advancement of the city, is admirably typical of the spirit of Jacksonville, from which Baltimore especially, and all other cities, could learn some valuable lessons. Jacksonville is the best illustration which I have seen of vitrified brick paving. Broadly speaking, the entire city is splendidly paved with vitrified brick, and it is the cleanest city of which I know. Its streets look like they had been scoured every night. This feature especially impressed itself upon me by reason of having just left the dust and dirt and debris of Baltimore, where municipal incompetency has so signally failed in making progress towards cleaning up the city after the fire.

Nowhere in the country have I heard more optimistic talk nor seen greater evidences of rapidly-increasing prosperity than in Jacksonville, and people from all parts of the State tell the same story of the conditions throughout all Florida. The business men are alert and energetic, as illustrated in the case of one concern, and that was but typical of many. A big hardware house in 10 days after the fire had built a new house 100 feet square and stocked it with \$30,000 worth of hardware, all of which had in the meantime been brought from the North and West. That is the spirit of hustle and "go" which is doing things here, and which did things at the time of the fire. The hotels are crowded and are constantly turning away people, even at this season of the year, and additional hotel accommodations are badly needed. The whole place reminds one very strongly of the energy and the spirit of co-operation which wayback in the early eighties gave Atlanta such a start that it has never since had time to slack up.

With the deepening of the bar at the mouth of the St. Johns—and the St. Johns river, a mile and a-half wide at Jacksonville, is a stream which for magnitude and beauty has never been appreciated—now under way, 24 feet having already been obtained, though this was not at low water, and is not officially announced by the army engineers, Jacksonville ought to become one of the leading ports of the Atlantic coast. The St. Johns river, running uphill as it does, or from south to north, is really a magnificent stream, and when once ample depth has been secured across the bar Jacksonville will have a harbor surpassed by few places. At this point the river makes a bend, which gives a frontage here of many miles. The Atlantic Coast Line owns as an inheritance from the Plant system an unusually attractive body of land with a very long water frontage covering some hundreds of acres at a point where the river is fully a mile and a-half wide, judging not by actual measurement, but by the eye. Here it is proposed to spend about \$1,500,000 in developing terminals, piers and wharves for lumber and naval stores, phosphates, etc., with the most modern facilities for handling such products, the intention being to make this an ocean outlet for a vast traffic, drawing to this port cotton, lumber, turpentine and other freight from the wide stretch of territory reached by the Coast Line and its connections. With a harbor far greater than has been appreciated by the business world; in fact, a harbor

which ought to guarantee all needed government aid to secure any depth desired across the bar, since there is ample depth in the river, Jacksonville ought rapidly to take rank as an export city of commanding importance. Certainly if untiring energy, if hearty, whole-souled co-operation, if broad views of broad-minded men of energy and push count for anything in this world, then Jacksonville may safely be ranked as among the coming great business centers of the South. R. H. E.

## IN NORTHWEST LOUISIANA.

Industrial and Agricultural Resources Still to Be Developed.

[Special Cor. Manufacturers' Record.]  
Shreveport, La., May 19.

The industrial and agricultural resources and development possibilities of Northwest Louisiana would more than likely come near taking the breath away from the enterprising and worthy portion of the country's population who live north of Mason and Dixon's line, and whose knowledge of the South is what they've gained from war stories and newspapers and magazines.

For instance, if they should examine the many different varieties of fine clay suitable for the making of the most exquisite pottery, mantel tiling, ornamental brick and the highest classes of building brick that are to be found in the vicinity of Mansfield, samples of which are on exhibition in the Progressive League club-room in Shreveport, they would no doubt be surprised at the opportunities in the pottery and tiling lines alone. One class of this clay which has already been burned it is believed will make a very good grade of porcelain. Others of these clays which have been burned will make a delicate blue shade, another mahogany, another a pale pink, and another a beautifully glazed light straw color.

Again, if they should take a day trip over the Texas & Pacific Railroad from Shreveport to New Orleans and witness that incomparable stretch of agricultural paradise with miles of corn, some of which at this date is bearing bloom and fruit, and from the train window looks like a great green ocean; pass rapidly into well-tilled cotton fields that extend beyond the eye's reach, filled with scores of happy, singing, prosperous laborers, and as if exploring some magnificent art gallery, the next picture would bring a half-million-dollar sugar-house with vast acres of Louisiana sugar-cane, and rush the next instant under the shadows of an hour's run of the finest hardwood forests in the country, even were they accustomed to the rich fields of the great middle West, they would probably think of what they had heard of the wealth of the South and yet say "the half has never been told."

Underlying the clay deposits around Mansfield, just out of Shreveport, are vast deposits of coal, which will reduce the cost of fuel for manufacturing purposes to the minimum.

The best varieties of gum to be found anywhere in the South are along the Red River valley, in North Louisiana, and expert estimators have said that some of this gum would cut as much as 30,000 feet per acre. There is no kind of timber now used in the making of ordinary grades of household furniture more extensively than gum. Only a short while ago, through the instrumentality of the Progressive League, a furniture factory was established in Shreveport, and now a saw-mill man from another State has been brought in to cut up gum lumber and furnish it to this furniture factory. This could be duplicated a number of times and there would still remain more gum than can be utilized for the manufacture of all the ordinary furniture that this country will use in a decade. Northwest Louisiana has but recently

been demonstrated one of the best sections to be found anywhere for raising peaches. Just across the State line into Texas, not many miles from Shreveport, all of the land recently devoted to the raising of a quarter of a bale of cotton to the acre is now planted in peach trees, and solid trains are going out of that section transporting the fruit to the Northern markets.

As to the profits made in raising peaches, they are so tempting that many prominent railroad men and capitalists of all sorts of business enterprises are investing in the cheap lands to be found here at \$5 an acre and less and planting them in peaches. As 100 peach trees can be planted to the acre, a conservative estimate of the yield is three bushels per tree, or 480 bushels per acre. Because of the fruit ripening so early in this section, it seldom sells for less than from \$1.50 to \$2 per bushel, but counting the selling price at only \$1 per bushel, a 5000-acre peach orchard would yield a gross revenue after the third year of \$2,400,000, which would be 10 per cent. on \$24,000,000, or enough money to build a very considerable stretch of railroad.

It has but recently been demonstrated that briquettes manufactured from the inexhaustible supply of lignite to be found underlying the greater portion of Northwest Louisiana scarcely more than eight feet below the surface is the very best of fuel, and it can be manufactured and sold cheaper than coal. A machine that costs \$14,000 will manufacture 100 tons of these briquettes in a day. One of these concerns is about to be located in Shreveport, and Northwest Louisiana will give a stimulus to this new industry, which promises so much of interest to the manufacturing world, inasmuch as it will shortly increase the supply of available fuel at a most reasonable rate.

It is not an uncommon thing for farmers in North Louisiana to become wealthy; that is, to accumulate \$100,000 in the comparatively short space of 10 years. Because of the 11 lines of railroad that enter Shreveport, the metropolis of this rich section, there is no place better adapted for manufacturing.

The Shreveport Progressive League is an organization composed of all of the leading business men of this city and of this section of the State which sends to all inquirers fuller information along every line. As it is impossible to give space to the larger number of interesting opportunities for capital, those who might wish fuller information can obtain same by making application to that organization for same.

No better evidence could be found of the wisdom and foresight of the founders and promoters of the Gould railroads that penetrate this section, as well as the other railroads that traverse it, than that they appreciate the great wealth of the country and were willing to blaze their way through a comparatively unknown section without ready traffic or immediate dividend promise and wait for a few years' development, which they have done and are doing, and reap a rich reward from one of the most productive sections of the common country.

LEE J. LANGLEY.

### STUDYING MISSISSIPPI.

A Trip With Mr. M. V. Richards of the Southern Railway.

[Special Cor. Manufacturers' Record.]  
Jackson, Miss., May 21.

While I have known Jackson as a solid, substantial city of the Southwest, Mississippi's capital, a delightful place to live in, splendid people and charming society, I was unprepared for the evidences of twentieth-century progress and development that I have witnessed here today. One sees on every side imposing new structures, is deafened by the buzz of whiz-

zing street cars the equal of any in the great cities, and the stores and centers of trade of every kind bear testimony to the aggressive energy of a moving city in a great Southern State.

There is nothing about Jackson that suggests the idea usually associated with State capitals that they are slow-going, secluded places, selected as fit only for lawmaking and a social environment that goes with official light.

Jackson is a strong, live, growing city, and its business and commercial interests are in the hands of progressive men, who have organized on a business basis, adopted the most approved plans of development operations, and are determined to make their city a metropolis of this vastly rich country. A board of trade has just been organized, with Mr. R. E. Kennington as president, and in my experience I have never head greater confidence expressed by a business community without an exception in the ability and public-spiritedness of any man than Mr. Kenning is credited with by his fellow-citizens. This means that the Board of Trade will accomplish the mission for which it was organized, and that Jackson will be a great beneficiary.

As it is my intention to write of Jackson more extensively in a future letter, I will devote my allotted space in this issue to a few things that I saw and heard in a few days' travel with Mr. M. V. Richards, the land and industrial agent of the Southern Railway, who has been traveling through the territory traversed by the Southern's western lines with the members of his staff of writers and photographers for the purpose of studying conditions in this section and gathering data and making photographs for a line of advertising for the western territory.

The party was composed of, besides Mr. Richards, Messrs. W. L. Henderson, agent land and industrial department Mobile & Ohio; C. L. Chase, agent land and industrial department, St. Louis, Mo.; W. A. Hays, land and industrial department, Washington, D. C.; Superintendent Webb, Mississippi division; J. L. Cox, commercial agent, Mississippi division, and citizens and newspaper correspondents.

Mr. Richards, although he is one of the best-informed men in the country on Southern progress, found many things in this section that he said frankly surprised him, and the people that he and his staff talked to, who formed the enterprising class that are closely following developments, learned a great many things that they did not know and that will result to their advantage.

In Washington county, Mississippi, the party visited, among other places, the home of Dr. J. T. Atterbury, and besides seeing one of the finest plantations from every standpoint in the United States, found alfalfa six weeks removed from the last cutting over 18 inches high. Mr. Richards learned from a reliable source that at the experiment station of Tulane University in Louisiana 12 crops of alfalfa are raised regularly each year. Mr. Richards and party saw country homes, barns and fields of cotton, corn, oats and many other farm products that he hardly expected to find, and yet he knows the South like a book.

The citizens of the various cities visited also learned a few things from the railroad party, or at least were reminded of things that they had not been giving due thought. In Greenwood, Miss., the party went through the Weems-Lockwood Furniture Co. and saw as pretty a line of furniture as ever run through a machine made from tupelo gum. Thirty minutes later, when the speechmaking at the beautiful Greenwood Opera-house was in progress, Mr. W. L. Henderson of the Mobile & Ohio, belonging to the Southern system,

was called for, and when he arose he turned his face to a window, and pointing to a great "new ground" landscape, he said:

"I have just examined a beautiful line of furniture made by your local factory from tupelo gum, and yet I see in front of me hundreds of the most magnificent gum trees deadened by the use of the axe to clear the ground for the plow—trees a half-dozen of which are worth the price of the land. You would be surprised should I tell you the quantity of this gum that is being shipped away and used to make mahogany out of, and, by the way, it makes a high quality of mahogany. If I should be asked to name an innocent crime against nature, I would point to the panorama before me and exclaim that criminal waste of timber!"

A well-authenticated story reached us, which is verified by its publication in a number of Southwestern newspapers, of a farmer and lumberman who recently walked down the Red river just across the line in Texas and saw a great log two-thirds embedded in a sandbar. He examined the log and found it to be a walnut tree well preserved and more than five feet and one-half in diameter, and he unearthed it, tugged it ashore and has just refused an offer of \$600 for it from a manufacturer of walnut furniture. This log was thrown into the river by a farmer who wanted to get rid of it.

We carried on the train through Washington county, Mississippi, Mr. J. Milton Wilson of Illinois, who has recently purchased 5000 acres of land in this section. Mr. Wilson said:

"I bought this land because it can be bought here for \$5 to \$15 an acre, and land as good or even not as good around my Illinois home is worth \$100 to \$150 an acre. I can see no reason for this difference in price except the comparative development of the two sections and the fact that the world generally does not appreciate the value of the land in this section. Besides, I am cultivating my land on a business basis and making money out of it. I pay my hands in cash every night, run no commissary, have no accounts, give them all they are worth and require the best possible service. I don't allow an idle negro on my place, and if I find one there with three hours to stay I put him to work and pay him in cash at quitting time. I am farming on a strictly cash basis, or, in other words, on a business basis, and I am surprised that this system has not been adopted before. With land yielding one to one and a-half bales of cotton an acre, with cotton at 10 cents and upwards, farming on this plan means fortunes."

This is what I call education—education to the industrial departments, the railroads, and equal education to the people of the South.

Let the other railroads penetrating this section send their industrial departments down here and exchange experiences with the people.

LEE J. LANGLEY.

### DRAGGING AT BIRMINGHAM.

Only a Limited Business in the Iron Market.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., May 23.

The iron market the past week was a dragging market, and the prospects are good for a continuance of that condition this week. There was but a limited inquiry, and it resulted in a very limited business. There was a continuance of some demand for iron of special analysis, but these orders were but a ripple on the surface. The price was variable. Some No. 2 foundry was sold at \$10 in special cases, the buyer being accommodated both as to delivery and analysis. There was also some sold at \$9.75, but only in a small

way, and for delivery in July, and some of it for delivery in June. But the most of the selling was at \$9.50 for deliveries up to August. But the business was in what is called scattering orders, or orders to fill pressing requirements of special grades.

There were a few orders in from the Eastern markets, and some business in No. 1 foundry was concluded at \$10 for delivery in July and some for No. 2 foundry at \$9.50 for delivery in June. But the lots were for very limited amounts and few in number. An intimation was given that \$9.50 for No. 2 foundry could be shaded for desirable business. While some will admit sales at \$9.50, there are none who will admit selling for any less price. Selling agents are advising their principals here that to secure activity in buying the market must go to \$9 for No. 2 foundry.

No. 3 foundry is quoted at \$9, and there is a whisper that it can be had at \$8.75. In the same way gray forge is quoted at \$8.75, and rumor says it can be had at \$8.50. But it is simply impossible to verify the reports. Basic iron is quoted at the price of No. 2 foundry, with only a nominal demand for it. There is very little more than a nominal demand for the entire list of grades, and if the market works any lower the buyers will all take to the woods.

From the steel mill comes the report that everything there is working smoothly, and they have contracts for steel rails that will keep them busy for some time to come. Their labor troubles have been overcome, and they are now running full-handed.

But the Tennessee Company is at outs yet with its labor at the rolling mill at Bessemer, and also with that at the Blocton mines. Those well posted believe that all differences will be healed this week.

We are now near the period when the miners in convention will fix the scale of wages for the coming year. Both the operators and the miners will ask for modifications of the contract now in force. From one source it is learned that the miners will ask for a two-year contract based on present rates, while from another source it is learned that a large element will contend for a flat scale in the mining of coal, irrespective of the price of iron. This latter element will probably have the support of those operators in coal who mine coal and are not interested in iron. They contend that a stated price for a given period is much better for both sides than a price that varies from month to month.

Leading railroad officials of various lines interested in the tonnage of the district were here last week, and left with the conviction that there was room for more of them to fill without injury to those who have already a strong foothold in the district.

J. M. K.

### TO CUT PIG-IRON PRODUCTION.

Output May Be Reduced 20 to 40 Per Cent. in 30 Days.

[New York Times, May 23.]

Within the next 30 days the production of pig-iron will be greatly curtailed at the furnaces in all parts of the United States. The proposed curtailment, which is not by united action, is variously estimated at from 20 to 40 per cent. of the present output. The furnaces to be most quickly affected are those which have been in operation the longest, as the new furnaces have more modern machinery and equipment, and can turn out iron at a lower cost than their older competitors.

The production of pig-iron during 1903 was 19,000,000 tons. Archer Brown of Rogers, Brown & Co. says that unless there is a great improvement in the buying movement in the United States during the next 10 days many furnaces will be closed down, and that the output for 1904 will be about 14,000,000 tons. Rogers, Brown & Co. operate furnaces in all parts of the

country, having extensive holdings in the South, along the lakes and in the middle West.

"The expense of making pig-iron in the South," said Mr. Brown, "is about \$4 per ton less than in the Eastern districts, considering that the furnaces in both sections have similar equipment, and other conditions, aside from the locality, being equal, but it costs about \$4 to ship the iron produced in the South to the market, so that the contest is about equally matched."

"The first curtailment to be made by this company will be in about three weeks. The furnaces in the Chicago district controlled by this company, producing about 600 tons of pig-iron a day, will then be closed down, and I think that it is the intention of other producers in that section to also close down at this time. This will be caused by the strike on the lakes, and will not be directly traceable to the decreased demand for pig-iron. However, it is our intention, beginning about June 1, to close down furnaces here and there where the conditions make it most advisable. There is said to be doubt whether the production of pig-iron now is in excess of the demand, but it is the universal opinion that it is. The exact extent to which curtailment is necessary is, of course, difficult to estimate, and depends upon the consuming capacity of the country. I think that furnaces in all sections of the country will begin closing down very rapidly, and before July 1 a large percentage of the furnaces in all sections of the country will be idle. They will close down ostensibly for repairs, but the repairs will not be made."

Col. William H. Ainey, president of the Lehigh Iron & Steel Co. of Allentown, Pa., who is now in the city, says that the furnaces in the Eastern Pennsylvania district are now closing, and that they will continue to close very rapidly unless the demand improves. He said:

"I estimate that fully 20 per cent. of the furnaces now operating on foundry pig-iron will be closed. The Bessemer plants will not be affected. Owing to the fact that the cost of labor, which constitutes 90 per cent. of the cost of production of pig-iron, is about 50 per cent. higher here than in England and about 60 per cent. higher than in Germany, it is useless for the United States to attempt to export pig-iron this year, or until there is a general readjustment of industrial conditions. It costs from \$5000 to \$10,000 to put a furnace out of blast, and there are many of the furnaces now being operated which are being operated solely in the hope that the demand may improve. Of that I see no particular hope during the present year. It is a presidential year, and this is always unfortunate. The development of the country and its resources, of course, will bring the situation back to its right place in a few years."

Benjamin Nicoll of B. Nicoll & Co., 59 Wall street, this city, states that the furnaces which will be chiefly affected will be the antiquated plants without modern labor-saving devices and equipment.

"We have four furnaces," said Mr. Nicoll, "which cost \$1,000,000 each and have a combined producing capacity of 1600 tons per day. It is our intention to continue operating and meet competition, whatever it may be. Labor is fully 30 or 40 per cent. higher than it ought to be, and must be forced down. Other expenses have been reduced, but labor has not been. We must bring the trade to an export basis and meet competition with foreign exporters of pig-iron. It costs \$8 per ton to produce pig-iron at Birmingham, \$9 at Pittsburgh and \$10 east of Pittsburgh—that is, with modern machinery and equipment—and there is no reason why the United States should not be able to meet outside competition on export iron if labor were

reduced to a fair basis compared with other countries. The smaller and older furnaces must go out, of course, but I do not think that this will amount to over 15 or 20 per cent. of the producing capacity now in operation."

George H. Mulford, a representative of the Sloss-Sheffield Company, said that he believed the Southern iron producers would force the price down 75 cents a ton during the next 30 days, and that the Northern furnaces would be unable to compete with them.

"I estimate the probable curtailment at about 20 per cent.," he said, "but this will, of course, be dependent upon the demand. Unless it improves from the present it must be much greater. The Southern furnaces have the best of the situation, and the furnaces located in the East the worst of it."

#### Pig-Iron Market.

Matthew Addy & Co. in their weekly report say:

"Pig-iron has been only in fair demand during the past week, purchases being confined mainly to lots for quick shipment. There is, however, a noticeable increase in inquiry, and a good many consumers have been tempting producers with offers below the ideas of the latter. No. 2 foundry is now quoted at \$9.50 Birmingham, and the furnaces are stubbornly standing at that price. Consumers in many cases apparently take a pessimistic view of the situation, and hence their offers below schedule. However, when it comes to purchasing, a buyer naturally takes, or at least assumes a pessimistic attitude, for he is doing all he can to drive a sharp bargain. The Southern ironmasters have three reasons for being firm in their stand for as good if not better than today's asking prices:

"1. At present quotations, they state, they are scarcely getting back a new dollar for an old one.

"2. Statistically, the Southern situation is sound, for stocks are steadily diminishing, and some grades, like No. 4 and forge, are absolutely exhausted, the furnaces all being behindhand in their engagements.

"3. The agreement with the miners expires July 1, and there is a decidedly uneasy feeling that possibly the labor troubles of 1902 may be repeated. The outlook in this regard is not good.

"So for these three very excellent and sufficient reasons the Southern producers are 'standing pat.'

"Coke has been in better demand during the week, and there is beginning to be business done in this commodity for delivery over the last half of the year.

"As for pig-iron, if consumers are going to keep on melting it there will have to be some heavy buying for the second quarter before long, as practically all the present open orders run out by the end of June."

#### A New Source of Fiber.

Mr. N. I. Mayes of Chattanooga, Tenn., writes to the Manufacturers' Record as follows: "Certain gentlemen in Tennessee have been for some time experimenting with a certain kind of grass found growing in unlimited quantities near them, which their experiments have shown to be a most excellent fiber plant, making a fiber of long texture, similar to ramie, but much finer, more like flax or Sea Island cotton. The fiber looks like wool, and being long, can be spun into thread and woven into various fabrics or used for packing, pulp for fine grades of paper, upholstering, etc. It is said the quantity of the natural material is unlimited, can be easily and cheaply manufactured at large profit, and the demand for the product is much greater than can be supplied. A company is in course of forming to erect factories to manufacture this stock. It is another discovery of the natural resources of the South."

## Convention Features of the St. Louis Exposition.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., May 23.

Under date of May 14 a reader of the Manufacturers' Record writes from Augusta, Ga., to the following effect:

"Tell me, in strict confidence, if the fair will be ready by June 15. I propose to come about that time, accompanied by a party of friends, unless, as I am afraid, the fair is far from complete."

It has been my purpose in this series of letters to speak of things as they are—nothing extenuate, nor yet fail to give full credit for everything that has been achieved. Therefore readers of the Manufacturers' Record may expect to find conditions at the fair precisely as they are represented in these letters.

It has been stated by the management of this exposition that the central idea would be educational, and to that end the distinctive feature here, the one setting it most particularly apart from all other world's fairs, would be the live exhibits, the motion, the processes. In so far as carrying out this idea is concerned, the exposition is not complete today, and cannot be entirely completed before the 1st of June. A late spring and a wet one presented obstacles to rapid installation of exhibits, and the natural and inevitable dilatoriness of most exhibitors added to the delay. The management has been energetic and insistent, however, and the exhibit palaces were finished and the grounds generally put in shape by or before the promised time. So with almost no exception the exhibitors themselves must bear the blame for not having everything in perfect trim before the beginning of the second month of the fair.

But while all that is intended to be carried out here is not a visible fact today, I repeat what I have said from the first, that the inspiring grandeur, the unmatched splendor and almost awesome magnificence of the spectacle of this world's fair are worth a trip across a continent to see, and have been from the first, and so nearly complete is the fair at this time that practically everything except the life and motion are found all through the various exhibit palaces, and furthermore, the number of moving exhibits is increasing day by day as completion marks the work of installing the displays.

From a careful and frequent inspection of the work throughout the whole fair, I have confidence that the present small percentage of unfinished displays will be in place shortly, and that very much before the 15th of June all the processes, educational features and every detail of attractiveness promised will be found here by the visitor to the fair. Already, and from the beginning, there is here infinitely more than any visitor can see, or seeing, could digest. As everywhere else in the world, and on every occasion in life, the visitor will discover only what are within the bounds of his mental horizon and the scope of his sympathies; but all with eyes at all will discover many things of rare interest of which prospectuses of the management, entries in catalogues and the articles of the writers have given him no hint. So I would say to all who intend to come—and I would most strongly urge all to come who can do so—come at the time you have fixed on as most convenient, for there will be compensations all the season through. It is a wonderful show now, instructive and absorbingly interesting, and there never will be more perfect days than these early days of spring. From the high eminence where the Administration Building stands the enchanting panorama of ivory palace, roadway, greensward and foliage which stretches out to meet the setting of lofty spire and nestling city in the distance affords a picture, in the clean light of

these fresh days, which enraptures all beholders. There have been visitors from far and near this week, for the convention days have come, and all have agreed that it is indeed a goodly sight to see; in fact, so interesting have all the features of the fair been found that not every session of the conventions held has been able to hold the delegates in leash, and grown-ups have tested again the joys that playing truant brings.

Nevertheless, the conventions have done some serious work, and their presence here and the entertainments given to the members have easily formed the feature of the week. The important conventions were three of national and international scope, and comprised the National Federation of Woman's Clubs, the National and International Good Roads Conventions and the Press Parliament of the World and the meeting of editors and publishers generally. The ladies were here in number from everywhere; their deliberations extended over the week, and in addition they gave much time to the social functions which occurred throughout the week at State buildings and in convention halls.

The Good Roads Convention was attended by delegates from many parts of the United States and from several countries abroad. Daily sessions were held throughout the week, and on one occasion the proceedings occurred in the assembly-room of the Missouri Building, on the grounds, the other sessions being held in Music Hall, downtown. The program of speakers bore many names of note, including Gen. Nelson A. Miles, Secretary James Wilson, members of Congress, men identified with the good roads movement here and abroad, and as indicative of the interest taken in the movement by the railroads, J. C. Clair, industrial commissioner of the Illinois Central, spoke on the part improved roads play in the industrial development of the country, and M. V. Richards, land and industrial agent of the Southern Railway, had for his topic "The Influence and Value of Good Roads Trains."

General Miles spoke of the value and need of good roads from the standpoint of a military man, and out of the experience which he gained as a campaigner. As a practical suggestion to help in the work of securing better roads, he urged that a portion of the unemployed men and engineers in the regular army could be advantageously employed to build roads. This would not only relieve the humdrum of camp and garrison life, but would enable the people to secure a great and permanent benefit in this way to the extent of some \$5,000,000 a year without any increased expenditure of public money.

A. W. Campbell, deputy minister of public works of Canada, who attended the convention as the representative of Great Britain and Canada, told of how his department had secured an appropriation of \$1,000,000 for good roads building in Ontario, and described the remarkable improvements which had been secured by the use of it.

Secretary Wilson of the Department of Agriculture declared the most important feature of the improved roads movement was the education of the people to make good roads out of the material at hand. It was useless to teach how to build macadam to a community hundreds of miles from a stone quarry or a gravel pit. He thought that when the people of the different States and Territories are thoroughly informed as to the science of road building there will be no difficulty in levying the taxes necessary to carry on the work.

Manuel D. Diaz, representative from Cuba, said \$2,000,000 a year for five years

had been set apart for road building in Cuba, and that more had been accomplished in the way of making good roads during the four years of home rule than during the entire centuries of Spanish occupation.

Joseph W. Folk, democratic candidate for governor of Missouri, suggested that two of the three railroad commissioners of the State might advantageously be put in charge of a State department of good roads building, to formulate plans and act in an advisory capacity with local road commissioners.

Speakers from Sweden, Mexico and Manila were on the program, and at the conclusion of the meeting it was felt that not only had there been given an elaborate presentation of the condition of the good roads movement throughout the world, but a decided advance had been scored toward the adoption of measures which will yield results of a practical and beneficial nature. In the discussion, by the way, the confession was made that the East and the South are now far ahead of the North and the West in achievements in good roads building.

The presence of several thousand editors from all over the globe in attendance on the World's Press Parliament was a most interesting feature of the week, and also an event of importance to the fair and to the country in which it is held. It was preceded by a meeting of the National Editorial Association, which listened to several notable speeches, among them one by Col. Henry Watterson on "The Editorial Page," which he thought should be very generally reformed or else abandoned. The pertinent paragraph and the flippant commenting he would banish. The editorial page is valuable to the degree that it aids the reader to digest the news, he held. Under a certain spell which has crept upon the modern newspaper, he declared, it is becoming, if it has not already become, a rather useless appendage, not even ornamental.

Major W. W. Screws of the Montgomery Advertiser was chosen the new president of the association, and Guthrie, O. T., was selected as the meeting-place of the next convention, so the South was well represented in the honors borne off.

The World's Press Parliament proper began Thursday night and lasted throughout the week. Secretary John Hay delivered the principal address of the opening session, and during the succeeding days and evenings journalists from all over the world read papers and took part in the discussions. Sir Hugh Gilzean-Reid of London occupied the chair of president. A more intimate knowledge of each other, a greater feeling of friendliness and a hastening of a time of universal and lasting world peace were, it was generally accepted, the benefits to result from this gathering of newspaper workers from so many parts of Europe, Asia and the islands of the sea. So greatly impressed with this idea were many of those in attendance that a movement was put on foot to effect a permanent organization and have meetings every year of newspaper men from every part of the world.

For 30 days or so visitors to the Palace of Machinery at the World's Fair have observed a towering steel frame of massive proportions near the center of the great hall, and on inquiry have been told that this is a part of the big exhibit which is being installed by the Niles-Bement-Pond Company, far and away the largest manufacturer of machine tools in the world. The Pratt & Whitney exhibit is also to be made in this space. Those who have watched the progress of the work can realize the tremendous difficulties in the way of getting this big exhibit into place, for it is outside the track of the huge traveling cranes which serve a portion only of the

machinery hall, and all the heavy pieces which constitute so important a part of this exhibit have to be handled with such appliances as can be improvised. Nevertheless, the observer has noticed the machinery gradually growing into shape and form, and Mr. Fred C. Woodrough, who is in charge, will tell you he expects to have the entire exhibit installed and in motion the first week in June. There will be 50 machines here, some of them of enormous size, and all of them will be moving. The exhibit occupies 12,075 square feet, took 50 cars to move it, and weighs at least 1000 tons. It is altogether the largest individual exhibit in machinery hall.

Without knowing all these details, the exhibit will certainly prove one of the centers of attraction for all those whose interest turns in the direction of machinery, and even the tyro will be fascinated by the gigantic proportions and enormous power shown by the central figure, the Niles 20-foot boring mill, already indicated. It will be the showpiece of the exhibit, and one of the features of the hall. Speaking statistically, it weighs over 175 tons, and it certainly looks the part. Its proportions are 15 feet under the toolholders, with center boring bar and head for a six-foot boring. It has crowning and undercutting head in the rear, and, as is characteristic of the Niles mills, is equipped with quick-power traverse. Motors of 80 and 10 horse-power will furnish the motive power.

Of scarcely less interest will be the Niles 10-foot boring mill, which is brand new, with positive gear feed and quick-power traverse, and the Niles 37-inch boring mill, which is of new style and also having positive gear feed.

The Niles nine-inch-spindle horizontal boring, drilling and milling machine, designed for the heaviest class of work, will be another show feature, as will the Niles 80-inch driving-wheel lathe, which is new in every detail, extra heavy, with powerful drive and quick traverse for tailstock and saddle. It will be driven by 50 and 3½ horse-power motors.

Another mammoth which is bound to be a center of attraction is the Bement 120-inch heavy planer, which has air reversing clutches and is driven by a 50-horse-power motor. The Pond 72-inch forge planer is likewise a notably heavy machine, and the Niles heavy double-axle lathe is a new type and extra heavy.

Another interesting feature will be the 6x132-thread milling machine, which will work out screws of all kinds by the new method of milling instead of cutting on a lathe, producing a more perfect and accurate screw.

The display includes a complete line of lathes, milling machines, drills, planers, shapers, grinders, profiling machines, etc., and a 5000-pound steam hammer. There is also a display of lathe chucks, a pyramid showcase containing cutters, reamers, gauges, taps, dies, etc., and three showcases containing dies, taps, etc., the whole exhibit comprising a display which will greatly interest the ironworker who is familiar with all their uses, while at the same time it cannot fail to prove a center of attraction to the visitor who sees in it merely a remarkable collection of machines of rare ingenuity and tremendous power.

The H. B. Smith Machine Co., Smithville, N. J., is making a very fine exhibit of woodworking machinery in the Palace of Machinery at the St. Louis World's Fair. This old and favorably known house manufactures everything in the line of woodworking machinery except saw-mill machinery, and the display at the exposition comprises some 40 machines, representing nearly a full line of all the machines the company makes. There is planing-mill machinery, machines for making sash, doors and blinds, and for furniture

and pianos. Ten or fifteen of the machines will be in operation, driven by individual motors, and it was the expectation some days ago that they would be ready to have the current turned on by the 25th inst.

ALBERT PHENIX.

## INDUSTRY AT NASHVILLE.

### Advantages of the City From a Manufacturing Standpoint.

Editor Manufacturers' Record:

The opportunity for making a perfectly safe and surely profitable investment is open at Nashville, Tenn. Parties with capital and experience are invited to come and test the truth of the following facts bearing upon the suitability of this city as an advantageous place for establishing a foundry for thin iron castings:

Nashville, the capital city of Tennessee, is on the Cumberland river, which is now navigable the greater part of the year, and by a splendid system of locks and dams is rapidly being made navigable throughout the year. It is one of the great central points of three railroad systems, viz., the Louisville & Nashville, the Nashville, Chattanooga & St. Louis Railway and the Tennessee Central Railway. The policy of all three roads is progressive and liberal. In the matters of switching facilities furnished and rates of freight charged on all raw material coming in and manufactured material going out the manufacturer has nothing to complain of, but to be encouraged by. Nashville is surrounded by the richest kind of land, is the largest manufacturing point in the State, and an educational center of the South. School facilities of all kinds are extraordinary. The rolling bluegrass country is extremely beautiful. The climate is pleasant and most healthy. Water is abundant and first-class. Good cattle, hogs, poultry in abundance, fruits and a splendid gardening soil render living agreeable and reasonable in cost. It is recognized as one of the first lumber markets in the United States. It is one of the largest fertilizer manufacturing points. It is a great shoe distributor. Several large clothing manufacturing plants are making and shipping overalls, corduroys, etc., to all sections. Thousands of barrels of flour and meal are ground and shipped daily. Large hardware and mill-supply houses carry all kinds of machinery and tools.

The extent and marked prosperity of the great Phillips & Buttorff Stove Foundry are known to the general trade. The fact that it is located here, where it has been so favored in the obtaining of raw material of the right kind at low prices, is the basic reason for its remarkable success. It is apparent that another foundry located here, not a rival of that establishment, but devoting its attention to the manufacture of all kinds of thin iron castings and ornamental iron work, now so much used, would yield equal or greater returns, and for the following reasons:

1. Because pig-iron of a quality highly suited to the production of castings of this kind can be obtained here permanently at lower rates than at almost any other place.
2. Because foundry coke of high grade can also be permanently had at very low prices.
3. Because this iron is so peculiarly adapted to work of this kind.
4. Because fine casting sand and hard and soft woods for patterns and boxes can be gotten here cheaper than anywhere else.
5. Because such excellent sites for a foundry just outside the city, reached with switches from competing roads, with ample water supply and street-car facilities, can be had, with only a light State and county tax to pay.
6. Because skilled and unskilled labor of a desirable kind are easily obtainable on fair terms.

7. Because the market for these articles manufactured is always active, broad and reliable, and the profit thereon satisfactory.

There are eight blast furnaces operated within less than 100 miles of Nashville, producing from 800 to 1000 tons of iron daily. All of them are located directly on the lines of the two railroads first above-mentioned. The rate on pig-iron into Nashville from any one of them does not exceed \$1 per ton of 2240 pounds; from the nearer ones the rate is less. All have a permanent, reliable supply of ore, easily mined, and in the items of coke, limestone and labor are so favored that they can produce iron at such low cost as to derive some profit at any stage of the iron market. Five of these furnaces are owned exclusively by Nashville men who are greatly interested in the upbuilding of Nashville, because the body of their property lies in Nashville. Because of this they are more than willing to sell Nashville foundrymen at very close prices, also remitting to them the usual agents' commission on sales. The foundry need carry no stock of iron, because the main offices of these furnaces are located in Nashville; they are controlled from here; telephonic and telegraphic as well as quick railway connections exist with all, and a carload or any number of carloads of the exact analysis desired can be delivered inside the foundry the day after the order is given. It can therefore be truly said that Nashville is in a position to conveniently and permanently obtain at low prices a full supply of iron without the necessity of keeping capital invested in it.

All of these furnaces use the rich brown ore of this section. The respective ore banks yield ore varying in phosphorus content running from very low to very high. This variation in phosphorus enables these furnaces to produce at will three kinds of iron:

1. A very strong low-phosphorus iron.
2. An intermediate iron of considerable fluidity, but possessing strength abundant for all ordinary castings.
3. A very high-phosphorus, high-silicon, low-sulphur iron of extraordinary fluidity.

Laboratories are maintained at every one of the furnaces. The stock used is analyzed daily. So likewise is the iron, and graded altogether by analysis. Reliable guarantees as to the limits of content, whether of sulphur, phosphorus, silicon or manganese, are readily given, because these have already been ascertained by actual analysis before shipment.

The free use of this iron in all of the manufacturing cities of the North and West has abundantly demonstrated its peculiar fitness for the making of all kinds of thin castings and articles of an ornamental nature, and it is much sought after because of this suitability. The foundryman, by a proper mixture or use of these grades, will be able to make almost any casting desired. He will not have to look elsewhere for any part of his mixture. This very fluid molten metal perfectly fills out the mold and gives a smooth, clean casting, free from scabs and blowholes. This iron has shown itself to be highly adapted to the making of stoves, radiators, hollowware of all kinds, piano plates, shelf hardware, plumbers' supplies, including bathtubs, soil pipe and innumerable small articles. It also lends itself admirably to all ornamental work, bringing out clearly all ornamentation.

In the matter of being able to obtain, at a very low price, coke of excellent quality, high in carbon and particularly low in sulphur and ash, Nashville is well favored. Four strong companies, all owners of immense deposits of coke-making coal, situated on the Cumberland mountains, a few miles from Nashville, have all recently constructed coke ovens at the sites of their

mines, and are either now operating or within a few weeks will be operating them on a large scale, producing high-grade foundry and furnace coke. This will not only constitute a nearby reliable supply of high-grade foundry coke for institutions at Nashville, but will prove a new and far cheaper source of supply for all of the furnaces mentioned, which heretofore bought from Virginia, which involved a long and expensive haul.

Inasmuch as coke in this locality represents two-thirds of the cost of pig-iron, the significance of this new and cheaper source of supply to these local furnaces and their consequent ability to sell iron cheaper to Nashville will be appreciated. It is certainly full of meaning.

Casting sand of high grade can be had at a very reasonable figure. Nashville is known far and wide as a hard and soft wood market, and this material therefore for patterns, boxes and other numerous uses can be gotten here cheaper than almost anywhere else.

Admirable sites just outside the city on any of the three railroads mentioned can be had. With a view to supplying these, one of these roads has constructed a belt line entirely around the city. The roads cross each other. A site in the forks would admit of switches from both roads into the foundry for reception of pig-iron and coke and for shipment away of manufactured articles. Abundance of water for fire protection and well suited for boiler use exists. Street-car facilities, pleasant location for houses for employees, excellent schools for the education of their children are also to be had.

The labor around Nashville is intelligent, reasonable and reliable. The men catch on readily, and only ask for fair and just treatment. When they receive this, strikes are of rare occurrence.

It is unnecessary to dwell on the market existing for the varied products of such a foundry. They are of every-day use everywhere. Nashville alone would take a large part of the product. The territory south of Nashville would require much. But such are the advantages of this location that shipments North and West could be made, as stoves are now sent there from here. A reasonable amount of capital, not at first large, under the control of an experienced, level-headed, mechanically-educated man worthy of confidence, so invested would soon yield returns the most satisfactory.

ROBERT EWING.

Nashville, Tenn.

### The Cotton-Oil Trade.

In a review for the National Agricultural Department of the industry in oil seeds Charles M. Daugherty, referring to the rise of the cottonseed-oil business since the war, says:

"A few mills were erected late in the sixties, equipped with hydraulic presses identical with those then in common use in the North for the expression of oil from flaxseed. Probably the utilization of waste was the most active principle underlying the early experiments. Contrary to what had been the case with linseed oil, no important domestic demand pre-existed for the cottonseed product. Unadapted to general illuminating and lubricating purposes, deficient in the drying properties essential to its use in paint, its edible properties unknown, its sphere of usefulness seemed limited. Interest became centered in the export trade. The foreign demand increased with each successive year, and soon became the chief support of the new industry. In 1879-80 the quantity of cottonseed oil manufactured in the United States had increased to about 9,000,000 gallons, and the importance of the export trade was apparent in the fact that almost 7,000,000 gallons

were shipped abroad against a little over 2,000,000 gallons consumed at home.

"In the following year the discovery was made that cottonseed oil mixed with certain animal fats made an acceptable and valuable substitute for lard. This gave an immediate impetus to the industry and eventually resulted in making it one of the most important industries of the Southern States. A domestic demand sprang up that absorbed practically the entire output of the then existing mills, and foreign trade, as a result of the active domestic competition, dwindled to insignificant proportions. In 1881-82 the output of cottonseed oil increased to about 12,000,000, and in 1882-83 to about 15,000,000 gallons. Of these quantities 11,000,000 and nearly 15,000,000 gallons, respectively, were taken by the home trade. The combined exports of the two years amounted to only 1,129,160 gallons. From the date of this discovery began a period of activity without abatement up to the present day. New mills were constructed year after year throughout the South until they now number upward of 600. The quantity of cottonseed utilized, which, previous to 1881, had never amounted to one-tenth of the total crop, has increased until fully 60 per cent. of the average crop is now converted into valuable products; this, too, notwithstanding the fact that the production of cottonseed has meanwhile increased in about the same proportions. New uses found from time to time for cottonseed oil have given additional stimulus to both foreign and domestic demand. A few years after the decline in the export trade in 1882 it was restored to its old proportions. Meanwhile the domestic trade, primarily as a result of the demand from packing-houses, was increasing by leaps and bounds. By 1893-94 exports had increased to 15,000,000 gallons; the domestic demand in the same year absorbed about 40,000,000 gallons.

"Between 1894-95 and 1902-1903 the production of cottonseed oil in the United States was doubled. In the former year arose a greatly increased demand for this product in Europe. In 1898-99 it culminated in exports of upward of 50,000,000 gallons, domestic demand in the meantime averaging about 40,000,000 gallons. This remarkable increase in the foreign trade attracted to the industry new capital and enterprise and resulted in a period of the greatest activity in the erection of mills known in its history. Since 1898-99 exports have declined irregularly, and in the fiscal year 1902-1903 they amounted to only 35,642,994 gallons. But the manufacture of oil has increased steadily and is estimated to have amounted in 1902-1903 to a total of from 110,000,000 to 115,000,000 gallons. Of this enormous output the domestic demand absorbed from 75,000,000 to 80,000,000 gallons."

### Many Visiting Engineers.

Engineers of two continents will meet in several gatherings in the United States during the next few months. A noteworthy feature of these gatherings is the fact that they will bring to this country several foreign engineering societies. The first of these to come, the British Institution of Mechanical Engineers, will meet in Chicago on May 31 to June 3 in conjunction with the American Society of Mechanical Engineers. This will be followed by the meeting of the Society of Chemical Industry at New York on September 7, 8, 9 and 10, which will conclude its sessions about the time of the arrival in that city of the Institution of Civil Engineers, which will make a tour of the country in company with the French Societe des Ingenieurs Civils. Later in the autumn the Institution of Electrical Engineers will arrive,

and in November the British Iron and Steel Institute will meet in New York and afterward make a trip to some of the leading cities in the country. These gatherings are independent of the International Engineering Congress, which, under the auspices of the American Society of Civil Engineers, is to be held at St. Louis in October. All of them will be effective in the advancement of the engineering profession in its various phases.

### Natural Gas for Industry.

Chanute, Kan., has organized a Commercial Club with a membership of more than 300 merchants. The membership represents all classes, and the motto of the club, as shown at the top of its stationery, is "free sites and cheap gas for manufacturing enterprises." The officers of the club are E. P. Burriss, president; C. B. Young, vice-president; J. C. Shinn, secretary; L. Rosenthal, treasurer. According to the statistics furnished by the club, the total daily productive capacity of the natural-gas wells in Neosho county, in which Chanute is located, is over 300,000,000 cubic feet, just 30,000,000 cubic feet less than the daily production of all the other natural-gas fields in the United States put together. There are 1000 producing oil wells in Neosho county within 10 miles of Chanute. The oil is high grade, and brings an average price of \$1 a barrel from the Standard Oil Co. The opportunity for the location of manufacturing enterprises is too apparent, says the club's literature, for extended argument. Chanute is within a day's ride of more than 8,000,000 people. Transportation facilities are excellent. It is now on two trunk lines, with a third building. A cement plant costing \$6,000,000 is in process of erection, a zinc and lead-smelting plant was blown in last month, and another will be erected within 90 days. The city is especially well located for the establishment of implement factories, machine shops, wagon factories, and being in the center of a great wheat country, the cheap fuel should be an added inducement in securing flouring mills. The Commercial Club is making an active campaign to attract the attention of capital to its resources.

### Armours at Fort Worth.

The business of Armour & Co. at Fort Worth, Texas, has grown so during the past two or three months that the yards of the company have been increased in size, and it is expected that within a short while the packing plant will have to be doubled in capacity and a canning plant and works for the utilization of by-products will be established.

### Virginia Arsenic.

Arsenic from the mine about eight miles from Christiansburg, Va., has been shipped to Pittsburgh. A company known as the United States Arsenic Mining Co., in which Pittsburgh men are interested, has obtained control of 1000 acres of land and has begun extensive operations to obtain the arsenic.

### National Manufacturers.

The National Association of Manufacturers at its Pittsburg meeting last week elected Messrs. David M. Parry of Indianapolis, president; Marshall Cushing of New York, secretary, and F. M. Stillman of New York, treasurer. The association will meet next year at Atlanta, Ga.

The Georgia Industrial Association, composed principally of cotton manufacturers, will hold its annual meeting at Warm Springs, Ga., on June 9.

The steel plant at Gadsden, Ala., of the Alabama Steel & Wire Co. will be put in operation about June 1.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### GREAT TERMINAL PLAN.

**Atlantic Coast Line to Spend a Large Sum at Jacksonville.**

The Atlantic Coast Line Railroad Co. has under consideration plans to make extensive terminal improvements at Jacksonville, Fla., where the company has a large acreage fronting upon the St. Johns river, which is a mile and a-half wide there. There is a depth of 20 feet of water in front of the company's property, and this may be increased to any desired depth. The government is also making improvements to navigation by deepening the channel over the bar at the entrance to the river to 24 feet, and this may be increased from time to time, as the money expended by the government is being done upon the continuous-improvement method.

The plans of the railroad company, which are now under consideration by the executive committee, will be for the handling of an extensive traffic in phosphate, naval stores and lumber, as well as other products going in and out of the port of Jacksonville. Some rearrangement of tracks will be necessary, and a new terminal line will have to be built to reach the proposed docks and piers. Altogether, these improvements projected by the company will necessitate an expenditure of \$1,000,000 or \$1,500,000.

The readiness with which such a great terminal may be established, and with great prospects of development, will be readily understood when it is stated that in the St. Johns river at Jacksonville can be obtained a sufficient channel depth for almost any craft, and the stream is not only deep, but long and wide. The magnitude of the work proposed will for a time necessarily postpone the date for beginning construction, as many details have to be settled. Some privileges desired by the company will have to be passed upon by the city council before work can begin.

### MOREAUVILLE TO CROWLEY.

**Plans of the Opelousas, Gulf & Northeastern Railway Co.**

Mr. George T. Edwards, secretary of the Opelousas, Gulf & Northeastern Railway Co., writes from Opelousas, La., to the Manufacturers' Record saying that the above is the correct name of the corporation, with its headquarters at Opelousas; also that the gentlemen constituting the board of directors represent more than \$1,500,000, and are residents of that place. Continuing, he says:

"It is proposed to build the line from Opelousas northeasterly and southwesterly, connecting with the Louisiana Navigation & Railway Co.'s line at Moreauville, Avoyelles parish, 35 miles from Opelousas, and connecting with the Southern Pacific at Crowley, a distance of 27 miles. It is proposed ultimately to extend the line beyond these points, but the line contemplated for early completion is from Moreauville to Crowley, a distance of about 70 miles, the entire line for that distance being through a rich agricultural country, level in the main, and over which the road may be constructed at a minimum cost for such work, and giving an outlet to market to a considerable portion of the country now compelled to haul their produce to market in wagons a long distance. The two main towns on the route are Opelousas and Crowley. Opelousas is the county-seat of St. Landry, and market for its 55,000 inhabitants. The local freight business done by our only railroad amounts to over \$40,000 per month. Crowley is the largest rice center in the world,

having 10 mills with a capacity of 125,000 sacks each. Other points on the route are Washington, Church Point, Big Cane, Moreauville and Pluachville, the entire route traversed being thickly settled.

"The engineering work is in charge of Mr. Leonce E. Littell of this place, and he is at this time engaged in making the preliminary survey. Contracts for material, labor, etc., will be let at an early date."

### HOXIE TO FRANKLIN.

#### A Railroad Which Will Open Up Zinc, Lead and Iron Lands.

The secretary of the Hoxie, Strawberry River Valley & Western Railroad Co. writes from Hoxie, Ark., to the Manufacturers' Record that the proposed line will run from Hoxie southwest to Clover Bend, and thence along the Strawberry River valley through Lawrence, Sharp and Izard counties to Franklin, a distance of 50 miles. Hoxie is at the crossing of the Frisco and Iron Mountain railroads. Clover Bend is on the Black river, into which stream the Strawberry river empties. The route selected will afford a water-grade line with small embankments and no cuts to make. The engineering will for the present be under the supervision of President R. S. Thomas, who has secured the right of way for the line. The company expects to begin construction in a short time, and hopes to reach Black river by the first of October. The date for awarding contracts is not yet named.

The proposed railroad will pass through, it is stated, one of the richest zinc fields in the Southwest. It would also open up one of the most productive fruit and berry countries there, one which is also a fine farming land. Besides zinc, there are iron and lead ores in all the different colors and of the finest qualities. Granite and limestone are found in abundance, but at present there is no way to get these things to market, as the region is 18 to 20 miles from any railroad.

### Gulf & Northwestern.

Mr. P. A. McCarthy writes from Meridian, Texas, to the Manufacturers' Record as follows:

"The Gulf & Northwestern Railway was incorporated May 13, 1904, under the laws of Texas, with capital of \$200,000, for the purpose of building a line of railway from Waco to the Texas coal fields in Palo Pinto county, a distance of 100 miles, with headquarters at Meridian, Texas.

"The following are the board of directors: W. M. Knight, Meridian, Texas; P. A. McCarthy, Lufkin, Texas; E. B. Robertson, P. S. Hale, H. C. Odle, N. R. Morgan, J. E. Turner, all of Meridian, Texas.

"The following are the officers: W. M. Knight, president, Meridian, Texas; P. A. McCarthy, vice-president and general manager, Lufkin, Texas; C. W. Tidwell, treasurer, Meridian, Texas, and N. R. Morgan, secretary, Meridian, Texas.

"A reconnaissance survey has been made. Contracts are being made for right of way, bonuses, etc., and valuable concessions will be secured. The road will give direct transportation for the coal fields to the Gulf, as well as for the lumber industries of South Texas to the Northwest. Survey will be commenced soon and construction pushed as rapidly as possible."

### Three New Arkansas Lines.

The incorporation of three more railroads in Arkansas is reported, making a total of 10 new charters within a week.

The Red River Valley Railroad Co. has been chartered to build from a point near Frostville, on the east side of the Shreveport branch of the St. Louis Southwestern Railway, in Lafayette county, west and southwest to the northern boundary of Louisiana, 12 miles. The directors are E.

W. Frost, E. A. Frost, Hester R. Frost, T. M. Dean and Milton Winham.

The Freco Valley Railroad Co. has been chartered to build a line from Eagle Mills, on the St. Louis Southwestern Railway, in Ouachita county, to Princeton, in Dallas county, 25 miles. The directors are D. E. Gales, J. F. Henry, O. F. Wyman of Eagle Mills, C. D. Haywood and E. B. Haywood of Davenport, Iowa.

The Ouachita Valley Railway Co. proposes to build from Millville, on the St. Louis Southwestern Railway, to Locust Bayou, in Calhoun county, 12½ miles. The directors are Stewart Gammill, John W. Clark, Millville; J. T. Henry of Eagle Mills, M. C. Smith, J. A. Freeman of St. Louis.

### TENNESSEE CENTRAL.

#### About \$800,000 to Be Spent in and Around Nashville.

As a result of arrangements made to end the receivership of the Tennessee Central Railroad, plans are under way to start construction on the terminals at Nashville. Mr. G. A. Clark, general manager, is quoted as saying: "We will begin the improvements within a week after the receiver's discharge, and will spend at least \$500,000 in Nashville. As nearly as I can estimate it, the other additions to the road will bring the total up to something like \$800,000."

It is further reported that the Tennessee Central has arranged to borrow \$4,500,000, this deal being arranged by President J. C. Van Blarcom. The receiver, Mr. W. J. Oliver, had claims against the road for construction.

The improvements in Nashville will consist of terminal lines and spurs, the building of shops, etc.

### ROCK ISLAND TERMINAL.

#### Big Steamship Dock to Be Constructed at New Orleans.

Dispatches from Chicago report that the Rock Island system has announced plans for its new terminals at New Orleans. They include provision for a slip for steamships the length of this dock to be 1400 or 1500 feet and the width 250 or 300 feet, the depth to be 40 feet, with ample accommodations for 17 ships. The cost of this improvement alone will, it is said, be from \$1,000,000 to \$1,500,000, and steel is to be used for construction. Grain elevators, warehouses, etc., will be erected, and the main wharf will extend out into the river to deep water. A very convenient arrangement of railroad tracks is projected, so as to secure easy loading and unloading of vessels.

As heretofore described, the freight yards in the city will have 30 warehouses and an immense cold-storage plant.

### Opelika and Auburn Plans.

The Opelika Railway, Light & Power Co., which has been chartered at Opelika, Ala., and which will build the proposed electric railway from that city to Auburn, will also, it is reported, purchase the property of the Alabama Electric Light & Power Co. at Opelika and install a new plant. The company will furnish light by means of both incandescent and arc lamps in Auburn, as well as in Opelika. It will also furnish power to customers, besides running the railway. The officers of the company are J. B. Greene, president; Rush Taylor, first vice-president; Bartow Smith, Jr., second vice-president; W. C. Robinson, secretary and treasurer; J. B. Greene, E. L. Andrews, M. T. Trawick, Bartow Smith, Rush Taylor, directors.

### Greenville & Knoxville.

According to advices from Greenville, S. C., construction will begin very soon, at least early in June, on the proposed Greenville & Knoxville Railroad, which will be

built from Greenville to Riverview, 21 miles, into a lumber district, and it is said that trains will be running before the end of the summer. The company will use the old roadbed of the abandoned Carolina, Knoxville & Western Railway. Some grading will, however, have to be done, and a number of small trestles will have to be erected. The line will run via Travelers Rest and Marietta, and the company is organized with the following officers: Hugh M. Prince, president; W. H. Patterson, vice-president and treasurer, and D. C. Patterson, secretary.

### BIG DEAL IN ATLANTA.

#### Louisville & Nashville Railroad Believed to Be Seeking an Entrance.

A report from Atlanta says that D. F. McClatchey of Marietta, Ga., has filed options on \$241,900 worth of real estate in the west end of the city along the line of the Atlanta & West Point and Central of Georgia railroads. This action, it is supposed, is taken in the interest of the Louisville & Nashville Railroad, which controls the Atlanta, Knoxville & Northern Railroad, and which is expected to enter Atlanta by a belt line, using the property mentioned for shop and yard purposes.

### A New Coal Road.

The incorporation of another coal railroad is reported from West Virginia. It is the Piney River & Loup Creek Railroad of Beckley, which proposes to build a line from Big White Stick, in Raleigh county, to Price Hill, in Fayette county, about 12 miles. It will reach coal lands that are being developed by the Piney colliery, and it will connect with the Loup Creek branch of the Chesapeake & Ohio Railway near Kilsythe. The incorporators are C. T. Jones, the well-known Loup Creek coal operator; Martha E. Gaines, J. W. St. Clair, C. R. Summerfield and S. L. Walker of Fayetteville.

### Frisco Consolidation.

A dispatch from Sherman, Texas, says that the stockholders of the San Francisco & Texas Railway, which is the name of the Frisco system's road in Texas, have approved the proposition to increase the capital from \$200,000 to \$3,000,000 and to purchase the following Frisco lines: Paris & Great Northern, Red River, Texas & Southern, Blackwell, Enid & Texas and Oklahoma City & Texas. This is to consolidate all the Frisco roads in Texas.

### Contract Awarded.

The Standard Electric Co. of Norfolk, Va., and Charlotte, N. C., has recently closed a contract with the Tazewell Street Railway and Tazewell Electric Light & Power Co. of Tazewell, Va., to engineer and construct their railway and light plants. The installation will consist of steam plant, two 100-horse-power boilers, 175-horse-power Corliss-type condensing engine, alternator, railway generator for street railway, cars and equipments.

### Houston-Galveston.

The Houston - Galveston Interurban Railroad Co. has filed a charter to build an electric railway 51 miles long from Houston to Galveston, as reported last year. The directors are James R. Patton of Kansas City, Mo.; Charles D. Graham of Fairview, Kan.; T. W. Allen of Greenup, Ill.; Walter Gresham, Galveston; W. E. Scott, W. B. Slossom, A. C. Abbott, J. E. Lafferty, all of Houston.

### Tennessee Railway.

The Tennessee Railway Co., capital \$200,000, has been chartered in Tennessee to build a line 10 miles long from Oneida, in Scott county, on the Queen & Crescent Route, south to the junction of Paint Rock creek and the New river. The incorpo-

rators are Ralph S. Barnes, H. P. Robinson and H. Clay James of Scott county, and Jas. D. Roberts and Samuel Sparks of Roane county, Tennessee.

### Railroad at Caddo Gap.

Mr. J. H. Hopper writes from Caddo Gap, Ark., to the Manufacturers' Record that the Iron Mountain Railroad Co. is building a railroad there, construction being done by the Dalhoff Construction Co. of Little Rock, Ark. A. J. M. Praskauer is chief engineer in the field.

### Railroad Notes.

The Mobile, Jackson & Kansas City Railroad Co. has, it is reported, connected its standard-gauge track with the Frisco system at New Albany, Miss.

The Mobile & Ohio Railroad has issued a very neat World's Fair blotter, attractively printed in colors, with a map showing its line to and from the St. Louis Exposition.

A dispatch from Macon, Ga., announces that the receivership of the Brunswick & Birmingham Railroad has ended as a result of the decision of the federal court in favor of the company.

Wagon Bros. of Anniston, Ala., are reported to have been awarded the contract for grading the Alabama Northern Railway's extension from Pyriton to Ashland, Ala., a distance of seven miles. The grade is to be completed by December 1.

The Coal & Coke Railway has begun the operation of passenger trains between Elkins, W. Va., and Sand Run, 23 miles. Eventually trains will be run through to Charleston, making a considerably shorter route than any now existing between that city and Baltimore and Washington.

Mr. Arthur W. Robson, steamship passenger agent, has issued a summer circular announcing his new location at the St. James Hotel, Baltimore, and briefly describing his facilities for business, which are the same as before the great conflagration, in which his former office was destroyed.

The Michigan Technic, the annual publication of the Engineering Society of the University of Michigan, has in its 1904 issue papers on "Drafting-Room System," by G. A. Worden; "Switchboard and Panel Board Design and Construction," by A. Frantzen; "Good Roads—Who Shall Build Them," by J. N. Hatch; "The Manufacture of Portland Cement," by R. C. Carpenter; "Locomotive Road Tests," by A. H. White; "A Base-Line Measurement," by A. H. Bennett; "A Few Reflections," by W. G. Salter; "An Experimental Investigation of Rankine's Theory of Earth Pressures," by F. C. Stevens and R. D. Goodrich; "The Testing of Lubricating Oils," by F. S. Parmenter; "An Investigation of the Aluminum Carbon Cell," by R. P. Jackson, and "Test of a Kerosene Engine," by W. A. Detwiler and L. N. Udell. The publication contains also sketches of the life of the late Prof. Chas. E. Greene, of Dean M. E. Cooley and of Prof. Joseph Baker Davis of the engineering department of the university.

The Filston Farm of 1250 acres in Baltimore county, Maryland, has been sold for \$170,000 to Mr. Henry D. Perky of Massachusetts, the head of an industrial science institute at Worcester, Mass., which he will remove to Maryland and enlarge.

Asheville and Biltmore are now served by electric-power of the W. T. Weaver Power Co., utilizing the water-power of the French Broad river.

Members of the business organizations of New Orleans have signed a petition asking for State legislation for the protection of forests.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### Rope Transmission of Power.

The two papers on rope transmission of power which were read by Mr. Frederick S. Greene before the New England and Southern Cotton Manufacturers' Associations have brought forth a great deal of discussion. While it has been generally known that rope driving is an economical way of transmitting power in textile plants, the figures presented by Mr. Greene brought the matter before his hearers with new emphasis. There was some criticism upon his paper read at the Boston meeting by a gentleman interested in electrical apparatus, who attacked especially the method of installation which was used as a basis for comparison, maintaining it was not the most advantageous or up-to-date way of installing electrical transmission in cotton mills. Mr. Greene answered this criticism at the meeting of the American Cotton Manufacturers at Washington by saying he did not claim that the method used for comparison was either the best or the worst way to install electrical transmission, but that from many prices received from nearly all the prominent makers of electrical apparatus, he selected the cheapest; that each firm applied to and each engineer questioned on the subject had suggested different arrangements for the motors, some advocating a large number of small motors, while others inclined toward few large ones. Mr. Greene said he was willing to admit that he did not know the best way to install electrical transmission in a cotton mill, and so far as he could find out, no one else did, for certainly no two electrical companies agreed on the subject.

All this discussion has led to at least one definite and striking proposition, which is as follows:

"The American Manufacturing Co. of 65 Wall street, New York, who manufactures transmission rope and other cordage, will agree to furnish the necessary rope sheaves, rope and driven head shafts for the main drives of any cotton mill using 500 or more horse-power which is developed at the mill site at one-quarter the price for which any responsible company furnishing electrical apparatus will agree to install the generators, motors and motor shafts, switchboard, wiring and other appliances necessary to electrically transmit the same power. Where the power is generated at a distance, if the mill will install one central motor the American Manufacturing Co. will agree to distribute the power from same to the main line shafts with rope drives for one-half the cost of electrical apparatus to distribute the same power. This offer is made to any cotton or woolen mill in the United States."

### Cotton in Mexico.

Last year, according to information from the City of Mexico, Julian Cacho planted a tract of land in the State of Oaxaca in cotton. Results have been so satisfactory that the governor of the State has promised to exempt from all State taxes agriculturalists who undertake cotton-growing. At the same time experiments are being made throughout the republic with the cotton tree, of which it is estimated that more than 20,000,000 seeds have been planted. Owners of Mexican cotton mills think that the success in the cultivation

of the tree will work a revolution in the price of cotton.

### Plans for \$600,000 Mill.

The Carthage Cotton Mills of Carthage, Mo., has been incorporated, with an authorized capital stock of \$600,000, by Messrs. Charles O. Harrington, J. A. Mitchell, S. A. Stuckey, J. L. Moore, J. D. Clarkson and others. This company plans to build a mill for 25,000 spindles, 10,000 to be installed to begin operations with. The plans and specifications are being prepared by Messrs. W. B. Smith Whaley & Co. of Boston, Mass., and Columbia, S. C. Charles O. Harrington is chairman of the board of directors. The machinery will be operated by electricity.

### The Cotton Movement.

In his report for May 20 Col. Henry G. Hester shows that the amount of cotton brought into sight during the 263 days of the present season was 9,625,786 bales, a decrease under the same period last year of 632,244 bales; exports were 5,640,706 bales, a decrease of 749,744 bales; takings by Northern spinners, 1,986,765 bales, a decrease of 18,337; by Southern spinners, 1,635,022 bales, an increase of 22,243 bales.

### Textile Notes.

New York capitalists will establish a cotton-rope mill at Huntsville, Ala. Probably W. I. Wellman can give information.

Arcade Cotton Mills of Rock Hill, S. C., has declared a semiannual dividend of 3 per cent., and contemplates adding 6000 spindles. The company now has 6032 ring spindles and 314 looms.

Capitalists will build a large cotton mill in New Orleans. They have purchased site through Leo Fellman, and arrangements for erecting and equipping the plant will be made during the next several months.

Cliffside (N. C.) Mills' additional building, reported last week, will be a two-story structure 100x164 feet, and in it will be installed from 100 to 125 looms. One story will be used as storage and shipping departments, etc.

Girard (Ala.) Cotton Mills will install additional machinery, contract for which has been awarded. The new equipment will include 600 spindles and 15 looms, increasing the mill's complement to 6500 spindles and 255 looms.

Winder (Ga.) Cotton Mills is increasing its capital stock from \$100,000 to \$140,000, but the company is not making any improvements, nor are any contemplated. Possibly 4000 spindles will be added in the future. There are 6000 spindles in position now.

Charles Warren Davis of Augusta, Ga., has been mentioned in connection with a report that a cotton factory will be built at Beaufort, S. C. He has explained to the Board of Trade of that town the advantages of locating a mill to manufacture high-grade yarns from the Sea Island cotton grown near Beaufort, and is corresponding with New England capitalists regarding such a plant.

Canton Cotton Mills, Canton, Ga., has let contract to E. P. Short & Son, Atlanta, Ga., for the erection of additional building in connection with its improvements announced in March. These additions will be 78x120 feet and 40x60 feet, enlarging the original building to 78x450 feet. As previously stated, the contract has been awarded for 3000 spindles, 190 looms and other machinery. About \$80,000 will be the cost of the improvements.

It has been suggested that the roots of the rice plant may be substituted for bristles in the manufacture of brushes.

## LUMBER

### Red Gum in Industry.

Recent investigations of the national bureau of forestry will hasten the utilization of the red gum as a source of timber supply. This tree is the predominant species on the hardwood bottom lands of all the Southeastern States. In spite of its abundant supply, it has been slow to reach commercial importance because of the extent to which it warps and stains in seasoning. While hickory, oak, ash and yellow poplar were cheaply obtainable red gum received little attention. The increasing scarcity and rising price of more adaptable trees have forced the gum into a market place of late and have caused lumbermen to seek, with partial success, such methods of handling it as would obviate the difficulties which have stood in the way of a larger use of the wood.

In common with all the hardwood bottom-land species—ash, cottonwood and oak—its growth is very rapid. It reaches a maximum height of 140 feet, and is commonly 30 to 40 inches in diameter, while trees of five feet in diameter are not infrequently found. Little red gum has been cut in the past, and at present it hardly pays to cut below 18 to 20 inches in diameter, so that this species furnishes a magnificent supply of full-grown timber in regions where culling has removed most of the larger trees of other kinds. The wood is comparatively straight-grained, free from knots and blemishes, and, because of its abundance, cheap. It is now used extensively for building timbers, flooring, boxes and barrels, and for numerous purposes where narrow boards can be used. It has been found that wide boards are very liable to warp.

Sixty per cent. of the barrels and boxes manufactured in the Mississippi Valley States are now made from this wood, in spite of the fact that its heaviness is against it for this use. Large quantities of gum are shipped to England, France and Germany to be manufactured into furniture and interior furnishings, and it has been used extensively in Europe for paving blocks. It can be successfully steamed and bent, and is thus available for barrel staves, wagon rims and carriage-wood stock. If the tendency of the lumber to warp and stain during seasoning can be prevented, its use will extend into many new fields. Certain facts have lately been discovered which show that such an extension is possible if proper methods of handling are employed. The heartwood can be air-dried without great stain or warp. Sapwood, however, if air-dried directly after coming from the saw, usually develops a large percentage of sap stain, which is caused in the case of most all conifers and hardwoods by a fungous growth which develops under certain conditions of humidity and temperature in the lumberyard, but it has been found that lumber from logs which have been allowed to remain in water for six weeks stains very little. Treatment with live steam has also been found to produce very favorable results in the elimination of staining and prevention of warping.

In steam-kilning the timber is thoroughly soaked in live steam for 48 to 72 hours, and is then dried by steam radiation for from 72 to 144 hours, according to the condition of the timber. The boards should then be air-dried for from two to three months. Lumber above one inch in thickness is air-dried only. Care must be taken in piling for air-drying to secure free circulation of air. Plenty of open space should be left between the boards, and the piles should not be over six feet wide. "Stickers" or cross-pieces of non-absorbent wood should be placed not over three feet apart. For this purpose oak and the heartwood of gum answer excel-

lently. Stickers of sappy or undried wood are very likely to cause stain to develop. By following these methods the lumbermen are able to furnish a better grade of timber, which has in consequence secured a firmly-established place on the market.

### Wants a Furniture Factory.

The Manufacturers' Record is informed that a Southern city which wishes to secure a furniture factory will supply practically all the capital provided a thoroughly competent person who understands the business will invest from \$5000 to \$10,000 in it and take the active management. This plant, if organized, will manufacture furniture and veneering, and the money to build it is already in sight. Persons interested in the matter should address "Furniture," care of Manufacturers' Record, Baltimore, Md.

### Wants Woodworking Machinery.

Joseph Bernasconi of Buenos Ayres, Argentina, writes to the Manufacturers' Record that he desires catalogues of woodworking machinery, especially those treating of the more modern production of charcoal. He adds that he is also interested in the latest systems for drying wood for furniture.

### Want Persimmon Wood.

Otto Max & Co. of No. 4 Place Sadi-Carnot, Marseilles, France, writes to the Manufacturers' Record that they desire to get into communication with American sellers of persimmon and cornell woods.

### Lumber Notes.

Mr. M. C. Camody of the Huntsville Lumber Co. recently closed two deals for saw logs representing \$12,000.

Four million feet of lumber are to be shipped through Savannah to Montreal for use on the Canadian Pacific Railroad.

The Waccamaw Land & Lumber Co. of Southport, N. C., with a capital stock of \$1,000,000, has been incorporated to engage in a general lumber business.

A bill has been introduced in the Louisiana legislature providing for a systematic protection of the forests of the State and for the replanting of denuded timber lands.

Such is the demand for cedar wood for the manufacture of pencils that several farmers of the Columbia, Tenn., section have sold old barns made of that kind of timber.

A dispatch from Carthage, Tenn., states that Aidery, Edwards & Co. of Paris, Ky., will establish a large lumber-yard at Carthage and will build mills for the purpose of working certain grades of lumber before shipment. The lumber will come from Macon, Clay and Jackson counties.

The National Hardwood Lumber Association at Cincinnati elected Earl Palmer of Paducah, Ky., president; W. S. Darnell of Memphis, treasurer; A. R. Winnedge of Chicago, secretary, and W. W. White of Boyne City, Mich.; O. Agler of Chicago and J. Wyatt Graham of Cincinnati, vice-presidents.

The Georgia Saw-Mill Association, which covers Georgia, South Carolina and Florida, at its annual meeting last week elected Messrs. H. H. Tift of Georgia, president; Arthur G. Cummings of Florida and William B. Stilwell of Georgia, vice-presidents; E. C. Howell, secretary, and J. L. Phillips, treasurer.

The building of the Guyandotte Valley Railroad into the upper portion of Lincoln county, West Virginia, has brought about the establishment of many saw-mills for the handling of timber that was formerly floated down the Guyan to mills at Guyandotte and other points. Stave mills are also numerous, and many thousand crossties are gotten out in that region.

## MECHANICAL

### Ridgway Two-Belt Conveyor System.

Nowadays plans are made and specifications drawn calling for belt conveyors,

point at least once, and they ought to be lubricated twice a day.

The tendency of the belt to flatten out between the carriers can be obviated by placing the carriers very close together, in which case the cost would be excessive.

head and tail pulleys in the usual manner, and has its separate take-up, so that the two belts, although moving together in the same direction at the same speed, are entirely separate and distinct, and this enables the conveying belt to be lifted off

supporting belt. The strains, therefore, are divided, the belt revolving two-thirds of the moving parts not being subject to the wear and tear of carrying the load, and the belt carrying the load being relieved of the strains and wear and tear of revolving the majority of the moving parts of the machine.

The interior belt is driven by a compensating drive (roller or block chain sprocket drive) from the main driving shaft, and with the two belts in tension just sufficient to prevent slip on their driving pulleys; both belts move at exactly the same speed in the same direction, and there is no rub of the conveying belt on the troughing blocks. At the points where the conveying belt meets the interior supporting belt, in order to prevent the rub and wear caused by the troughing blocks moving in a larger radius (the conveying belt being at the same height as the center of the supporting belt), a pair of concentrating rolls lift the edge of the belt and drops it into the troughing blocks. This same method is used where the conveying belt leaves the troughing blocks at the opposite end.

Accompanying illustrations show the Ridgway Two-Belt Conveyor System installed for the Washington (D. C.) filtration plant.

Fig. 1 represents the carriers used in the two-belt system. They are straight rollers fastened to steel shafts revolving



FIG. 1.—RIDGWAY TWO-BELT CONVEYOR SYSTEM.

and it is no longer a question of creating a demand, but of supplying it. Belt conveyors have been all designed and the effort made to perfect them on the fundamental principle of causing the belt to be troughed or cupped, and this has been accomplished by using concentrators either independently of the horizontal carrying pulley or in various combinations.

The angles of the concentrating rollers have been varied from 45 per cent. to 40, to 35, to 30, and finally reached the low angle of 20 per cent. The evolution of the angle of the concentrating rollers leads to the conclusion that the wear on the belt, by causing it to bend abruptly, has been very damaging and destructive to the life of the belt.

In any type of three-pulley carrier, the bottom horizontal and the side pulleys at varying angles, the belt is forced (by the weight of the load when it conforms to the outline of the carriers) to make a more or less sharp bend where the horizontal and angle pulleys meet, and all the strain is concentrated on two points. Again, the three-pulley type of carrier requires that the pulleys be loose on the shafts, and the friction surface is very great, and the tendency of the side rollers, logically and in fact, is to wear in such a manner as to produce in time a gyrating motion.

The practical machine must be simple, cheap and efficient, the highest general average being the criterion of merit and value.

the supporting belt and out of the troughing blocks and passed through either a stationary dumper or a movable tripper.



FIG. 3.—RIDGWAY TWO-BELT CONVEYOR SYSTEM.

In the two-belt system an interior troughing and supporting belt runs over its individual head and tail pulleys, hav-

The conveying belt has no work put upon it other than required to drive the lower carriers and its own head and tail

in babbitted boxes, the boxes being ball and socket, ring-oiled, felt-washed and dustproof. By this method not only is cheapness attained in first cost, but power is saved and the labor of supervision eliminated as far as the factor of lubrication is concerned. In the two-belt system the carrier belt, or conveying belt proper, lies in a natural position, a true segment of a circle, with the strains distributed over its whole width uniformly. It is claimed this increases the life of the belt from 75 to 100 per cent. over any type of pulley-troughed belt.

Fig. 2 shows the interior troughing and carrying belt with its troughing blocks attached; this interior belt, by a compensating drive, is driven at the same speed as the upper carrying belt, and the two move together through their entire travel on both the upper and lower sides. The conveyor belt proper for the two-belt system is a machine-made belt with a protective cover made of average good material, and from that grade up to the best, as the exigencies of the case call for. The special belts which are made to conform to the hard conditions of continuous flexing are hand-made belts, and in order to give satisfactory service must be made of the highest grade of material to stand the wear and tear of angular bending.



FIG. 2.—RIDGWAY TWO-BELT CONVEYOR SYSTEM.

The bearing surfaces, though lubricated internally, still labor under the disability of having to be lubricated at every

ing separate take-ups, and is entirely independent of the conveying belt proper. The conveying belt is threaded over its

pulleys, all the carriers on the upper line, which comprise two-thirds of the total number used, being revolved by the inner

The inner or troughing belt carries the outer or conveying belt through the upper line of working travel, and the outer belt carries the inner belt on its return and through its travel in the lower line. The ability to use straight rollers, all strains being compression strains and not bending or breaking strains, enables the use of the lightest casting that can be machined and finished. This has a double advantage in reducing weight and cost and minimizing power. Only a clean belt comes in contact with the upper carriers, which comprise two-thirds of the total number used.

When the conveying belt proper, the only one necessary to be renewed, gives out, the cost of its renewal is said to be approximately one-half what it would cost in any type of single-belt conveyor, quality and grade of material being equal.

Fig. 1 shows a set of plain carriers, and Fig. 2 shows the inner carrying and troughing belt, with its troughing blocks attached. Fig. 3 shows the assembled parts, the conveying belt proper resting on the blocks of the inner belt and producing a trough which conforms to the true segment of a circle. By this method the continuous flexing of the belt is pre-

vented, and it travels true over any intermediate length between ends. The advantages, then, of the two-belt system are obvious, viz., lighter, requiring less power, self-lubricating and dustproof, practically cutting out the necessity for constant watching and lubrication. Whenever the conveying belt proper, the only part subject to wear and tear, is required to be renewed, it costs approximately one-half, as contrasted with some types of conveyor, to put them in condition of their original efficiency. The bending strain is distributed, which increases the life of the belt 75 to 100 per cent. The two-belt system in perfection of detail conforms to the best practice from a mechanical, engineering and economic standpoint.

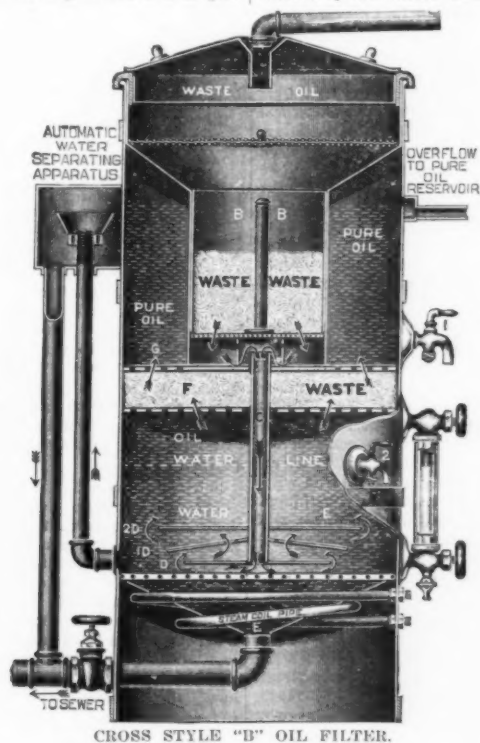
This system is furnished by the Ridgway Belt Conveyor Co., 20 Broadway, New York, and is fully protected in both the United States and foreign countries.

#### Cross Style "B" Oil Filter.

The filter shown in the accompanying sectional view is designed to receive the condensation from oil separators or exhaust heads and to automatically separate the oil from the water, while at the

same time purifying it. The water is drained to the sewer, and the pure oil, rising into a separate chamber, overflows into the pure-oil reservoir. The filter is made in 12 different sizes, with filtering capacities of from 300 to 500 gallons per 24 hours.

The mixed oil and water is received through the inlet at the top of the filter and then passes through a layer of waste, which collects all the heavier impurities of the oil. From thence it passes through the perforations in the bottom chamber B, following the course indicated by the arrows into tube C, and from here on to the filter plate D. The increased weight of the water has a tendency to keep the oil back in tube C, but when the pressure of the oil in chamber B becomes sufficient the oil is forced down and spreads over the plate D in a very thin film. This constantly changes surface and grows thinner as it travels from the center to the circumference of plate D, thus exposing every particle of oil to the action of the water. It then flows on to plate 1D and 2D, going through the same process in each case. When the oil leaves the plate 2D it is in a finely-divided state and is thoroughly washed by the water. It is separated from



CROSS STYLE "B" OIL FILTER.

the water by gravity, and all the remaining impurities settle in chamber E, from which they can be drained to the sewer by opening the gate valve at the bottom of the filter. From the plate 2D the oil rises and again filters through F, another layer of waste, into the pure-oil chamber, where it accumulates until it overflows into the oil reservoir. The water is automatically separated after it passes down the tube C and reaches the bottom plate, on account of its being heavier than the oil, and the surplus water passes into the pipe leading to the automatic water-separating device. The filter will meet a particular field of usefulness in its ability to reclaim waste cylinder oil, the most expensive oil used about a plant, and the filtered product can be used to lubricate pumps and other machinery. It is made by the Burt Manufacturing Co. of Akron, Ohio.

#### Murray Feed-Water Heaters.

Accompanying illustrations present views of the Murray Feed-Water Heaters.

The open heater and purifier, Figs. 1 and 2, is, as its name implies, a heater and purifier combined. In the open heater the feed-water supply from the pump, tank or water-works is regulated by an auto-

matic float valve, which admits to the heater only as much water as the boiler requires. The feed water first passes over a series of removable pans which take out such impurities as will precipitate at

the pure water from beneath the surface in the settling chamber only, the syphoning being stopped by the admission of air into the goosenecks when the surface of the feed water is an inch above the open-

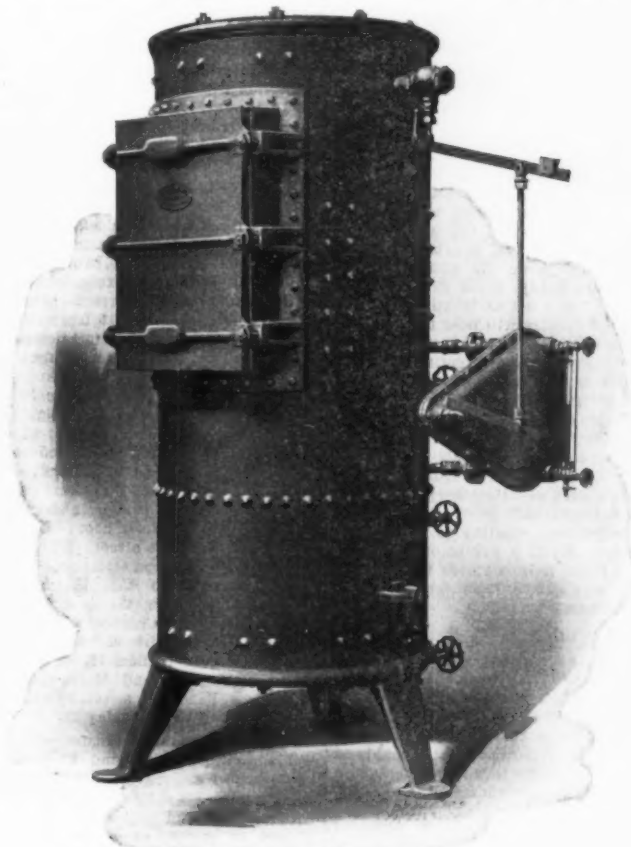


FIG. 1.—MURRAY FEED-WATER HEATER.

a temperature of 212 degrees, such as lime and magnesia; then to the settling chamber, where the oil and such other impurities as come to the surface of boiling

ings in the goosenecks, where it is kept hot by the exhaust steam pipe that passes through it.

This heater creates no back pressure,

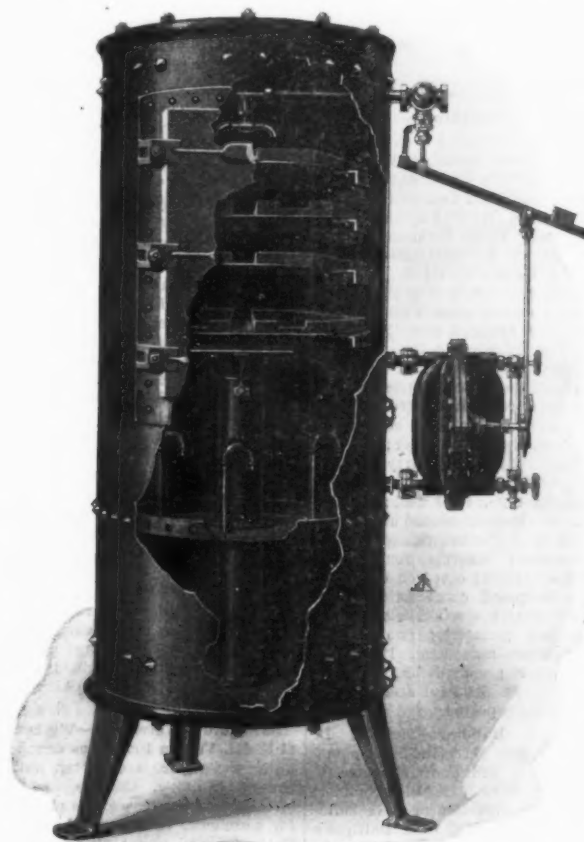


FIG. 2.—MURRAY FEED-WATER HEATER.

water are skimmed off (being in contact with the exhaust steam from the engine, etc., all the time); thence to the pure water or pump suction chamber through a series of syphon goosenecks that take

condenses part of the exhaust steam, purifies the feed water and heats it to the maximum temperature.

The Murray Iron Works of Burlington, Iowa, manufactures these heaters.

# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## BALTIMORE BUILDING NOTES.

### Business Buildings.

**Baltimore—Office Building.**—C. Morton Stewart, 627 N. Calvert street, has selected the following bidders on the Donnell Building, 8 W. corner Gay and Lombard streets; Henderson & Co., Ltd., 218 W. Fayette street; Wm. Steele & Sons, 17 W. Saratoga street; Charles Gilpin, 21 E. Saratoga street; Henry Smith & Sons Co., 116 S. Regester street; John Hiltz & Son, 3 Clay street; H. S. Rippel, 7 Clay street; John Waters, 23 E. Centre street; J. J. Walsh & Son, 1529 Maryland avenue; Wm. Ferguson & Bro., 214 Clay street; R. C. Ballinger & Co., 21 W. Saratoga street; Well Bros. Co., 344 N. Charles street; F. B. Gilbreth, 612 N. Calvert street; Tide-water Building Co., 227 St. Paul street; W. L. Fosburgh, 18 E. Lexington street; Murphy Construction Co., 202 N. Liberty street; Cramp & Co., 407 St. Paul street. Structure to be six stories high, 64x58 feet; granite base; Indiana limestone to second story; red repressed sand brick for remaining stories; terra-cotta cornice; concrete foundation; steel beams and girders; cast-iron columns; slag roofing; fireproof construction; fireproof elevator shaft; electric wiring and fixtures; sanitary plumbing; two electric elevators; steam-heating system. Plans and specifications were prepared by Mottu & White, architects, 402 St. Paul street. This building previously reported.

**Baltimore—Store Building.**—The P. B. Sadtler estate, 401 Maryland Telephone Building, Lexington and Courtland streets, has awarded contract to J. H. Miller, builder, 110 Dover street, for erection of store building to be located at 14 and 16 E. Baltimore street, after plans and specifications by Henry Brauns, architect, 113 W. Saratoga street. Structure to be four stories high, 30x115.7 feet; pressed brick, with granite, bluestone and marble trimmings; concrete foundation; steel beams and girders; cast-iron columns; mill construction; reinforced concrete floor on first story; fireproof vaults; prismatic pavement lights; granolithic pavement; Terrazzo flooring; fireproof partitions; fire shutters; galvanized-iron cornice;

galvanized-iron skylight, glazed with wire-glass; mahogany and plate-glass store front; electric wiring and fixtures; sanitary plumbing; radiators will be installed to be used in connection with outside heating system; one hand elevator. This building to be completed by October 1 and be occupied by G. T. Sadtler & Sons, opticians and jewelers, temporarily located at 328 N. Charles street.

**Baltimore—Store Building.**—Further details have been obtained concerning store building for Charles Keldel, 914 St. Paul street, plans and specifications for which were prepared by Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington streets. Structure to be five stories high, 45x103.5 feet; terra-cotta front, with ornamental terra-cotta trimmings; marble base; concrete foundation; steel beams and girders; cast-iron columns; slow-burning construction; tin roofing; fireproof vault doors; pavement lights; fire-escape; metal frames and sashes; wireglass; granolithic pavement; galvanized-iron skylight; electric wiring and fixtures; sanitary plumbing; steam-heating system; one dumb elevator; one power passenger elevator; one pavement lift; cost to be about \$65,000. John Waters, 23 E. Centre street; William Steele & Sons, 17 W. Saratoga street; the George A. Fuller Construction Co., 612 N. Calvert street; Burnham & Wells, Builders' Exchange Building, Charles and Lexington streets; Henry Smith & Sons Co., 116 S. Regester street; William Miller & Sons, 345 N. Charles street, and Morrow Bros., 212 Clay street, have been selected to bid on the work. Bids to be in by May 28.

**Baltimore—Apartment-house.**—R. E. L. Williamson, Baltimore and Eutaw streets, has awarded contract to Thomas B. Stansfield, builder, 109 Clay street, for erection of back building and remodeling 235 Madison avenue, to be used as an apartment-house, plans and specifications for which were prepared by Haskell & Barnes, architects, Central Savings Bank Building, Charles and Lexington streets. Back building to be two stories high, 15.6x29.6 feet; brick; tin roofing; sanitary plumbing; gas fixtures; hot-water heating system; cost to be about \$5000.

**Baltimore—Lodging-house.**—Eugene Levering, 28 W. Lexington street, has awarded contract to D. W. & G. H. Thomas, builders, 419 N. Charles street, for general repair of Levering House, recently damaged by fire. Entire top story, which is 50x100 feet, is to be rebuilt and covered with asphalt roofing.

**Baltimore—Theater.**—Charles Blaney of New York has awarded contract to Milton C. Davis, builder, Builders' Exchange Building, Charles and Lexington streets, for remodeling the Oriole Theater on North Eutaw street. New stage; additional gallery; new roof; enlarged foyer; fire-escapes; decorating and general overhauling of building; cost of repairs to be about \$25,000.

**Baltimore—Warehouse.**—William Keyser, 14 Mt. Vernon Place, has engaged Archer & Allen, architects, Central Savings Bank Building, Charles and Lexington streets, to prepare plans and specifications for warehouse to be located at 27 W. Baltimore street. Structure to be five stories; brick; concrete foundation; steel beams and girders; cast-iron columns; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

**Baltimore—Dwellings.**—J. C. German, 13 Clay street, will erect for himself nine dwellings to be located on Madison avenue, near Presman street, after plans and specifications by Jacob F. Gerwig, architect, 16 Clay street. Structure to be three stories high, 16x64 feet; back buildings, two stories high, 12.6x22.6 feet; brick, with Georgia marble base and trimmings; tin roofing; galvanized-iron cornices; sanitary plumbing; gas fixtures; furnace-heating system; kitchen ranges; cost to be about \$30,000.

**Baltimore—Warehouse.**—William Keyser, 14 E. Mt. Vernon Place, has engaged Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington streets, to prepare plans and specifications for warehouse to be located at S. E. corner Baltimore and Sharp streets. Structure to be five stories high, 61x35 feet; brick, with ornate front; concrete foundation; steel beams and girders; cast-iron columns; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

**Baltimore—Warehouse.**—William Keyser, 14 E. Mt. Vernon Place, has engaged Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington

streets, to prepare plans and specifications for warehouse to be located at S. W. corner Baltimore and Hanover streets. Structure to be five stories high, 24x60 feet; ornate brick front; concrete foundation; steel beams and girders; cast-iron columns; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

**Baltimore—Store and Office Building.**—W. Hall Harris, 216 St. Paul street, as trustee for the Patterson estate, will erect store and office building at N. E. corner Baltimore and Gay streets, after plans and specifications by Wyatt & Nolting, architects, Builders' Exchange Building, Charles and Lexington streets. Structure to be four stories high, 46.10x102 feet; brick front; Indiana limestone and architectural terra-cotta trimmings; granite base; concrete foundations; steel beams and girders; cast-iron columns; tin roofing; galvanized-iron cornice and skylight; fire-escape; fire shutters; electric wiring and fixtures; sanitary plumbing; steam-heating system; six plate-glass store fronts. Samuel Sprent, 203 N. Pine street; John E. Marshall & Son, 309 North street; Thomas B. Marshall, 111 S. Eutaw street; J. H. Miller, 110 Dover street; John Cowan, 106 W. Madison street, and Morrow Bros., 212 Clay street, have been selected to bid on the construction. Bids to be in by May 28. This building previously reported.

**Baltimore—Warehouse.**—Estate of Joseph H. Rieman, S. W. corner Howard and German streets, has engaged Haskell & Barnes, architects, Central Savings Bank Building, Charles and Lexington streets, to prepare plans and specifications for warehouse to be located at S. E. corner Howard and German streets. Structure to be six stories high, 52x80 feet; brick, with terra-cotta trimmings; concrete foundation; steel beams and girders; cast-iron columns; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

**Baltimore—Warehouses.**—Revised plans and specifications have been made by the Woodruff-McLaughlin Company, architects and constructing engineers, 100 East Lexington street, for warehouses for William Kleinle to be located at 413, 415 and 417 Exchange Place. Slow-burning construction will be used instead of ordinary construction, and metal frames and sashes and wireglass will be used throughout the buildings. The Woodruff-McLaughlin Company will also erect the buildings, as previously reported.

**Baltimore—Salvage Corps Building.**—Haskell & Barnes, architects, Central Savings Bank Building, Charles and Lexington streets, have prepared plans and specifications for Salvage Corps Building No. 2 to be located on Broadway, near Baltimore street. Structure to be two stories high, 20.9x30 feet; red-brick front with light terra-cotta trimmings; concrete foundation and floor; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$15,000. John Hiltz & Son, 3 Clay street; Thomas L. Jones & Son, 410 West Saratoga street; Rufus Bennett & Son, 520 West Biddle street; E. D. Preston, Builders' Exchange Building, Charles and Lexington streets; Morrow Bros., 212 Clay street, and John Cowan, 106 West Madison street, have been selected to bid on the construction; bids to be in by May 30.

**Baltimore—Store Building.**—W. Hall Harris, 216 St. Paul street, as trustee for the Robinson estate, has commissioned Henry Brauns, architect, 213 West Saratoga street, to prepare plans and specifications for four-story store building to be located at 15 East Baltimore street. Structure to be four stories high; ornate brick front; concrete foundation; steel beams and girders; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system.

**Baltimore—Warehouse.**—Further details have been obtained concerning warehouse for Henry White to be located at 17 and 19 West Baltimore street, and plans and specifications for which were prepared by Wyatt & Nolting, architects, Builders' Exchange Building, Charles and Lexington streets. Structure to be six stories high, 43x36 feet; granite base; pressed brick with architectural terra-cotta trimmings; concrete foundation; steel beams and girders; cast-iron columns; tin roofing; terra-cotta cornices; slow-burning construction; reinforced concrete pavement over vault; fireproof vault; prismatic pavement lights; metal frames and sashes; wireglass; galvanized-iron skylight glazed with wireglass; fire-escape; electric

wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; cost to be about \$50,000. James Stewart & Co., 319 North Charles street; the Chas. McCaul Company, 123 West Saratoga street; F. B. Gilbreth, 211 North Liberty street; John Cowan, 106 West Madison street; Henry Smith & Sons Co., 116 South Regester street; J. H. Miller, 110 Dover street; Charles Gilpin, 21 East Saratoga street; John R. Wiggins & Co., 325 St. Paul street, and Henderson & Co., Ltd., 218 West Fayette street, have been selected to bid on the construction; bids to be in by May 31.

**Baltimore—Office Building.**—Revised plans and specifications have been made for office building for Napoleon B. Lobe to be located at 15 and 17 South Gay street by George Clothier, Jr., architect, Eutaw and Saratoga streets, who will also superintend the construction of the building. Structure to be five stories high, 33x33 feet; red-brick front with Indiana limestone trimmings and galvanized-iron bow windows; marble base; concrete foundation; reinforced concrete floor on first story; steel beams and girders; cast-iron columns; steel fireproof partitions; slag roofing; metal window frames and sashes; wireglass; three galvanized-iron skylights glazed with wireglass; electric wiring and fixtures; sanitary plumbing; steam-heating system; power passenger elevator; two plate-glass store fronts; basement will be fitted up as ratskeller; cost to be about \$30,000. This building previously reported.

**Baltimore—Warehouse.**—John Duer & Sons, 12 and 14 North Paca street, have awarded contract to F. B. Gilbreth, builder, 211 North Liberty street, for erection of warehouse to be located at 36 and 38 South Charles street, after plans and specifications by Wyatt & Nolting, architects, Builders' Exchange Building, Charles and Lexington streets. Structure to be six stories high, 35.3x113.6 feet; pressed-brick front with galvanized-iron trimmings; granite base and coping; concrete foundation; steel beams and girders; cast-iron columns; tin roofing; iron spiral stairway; galvanized-iron skylight; fireproof vault; wireglass; prismatic glass; electric wiring and fixtures; sanitary plumbing; steam-heating system; two electric elevators. This building previously reported.

**Baltimore—Warehouse.**—Dr. Henry J. Berkley, 1305 Park avenue, has commissioned the Century Architectural & Engineering Co., architects and engineers, 114 East Lexington street, to prepare plans and specifications for warehouse to be located at 35 and 37 South Liberty street. Structure to be five stories high with basement, 40x87 feet; Pompeian brick front with ornamental iron and copper trimmings; concrete foundation; steel beams and girders; tin roofing; slow-burning construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; cost to be about \$30,000.

**Baltimore—Bank Building.**—Further details have been obtained concerning bank building for National Mechanics' Bank to be located on northwest corner German and South streets, and plans and specifications for which were prepared by Taylor & Knowles, architects, 11½ East Pleasant street. Structure to be one story high with basement, 48x100 feet; granite or limestone exterior; concrete foundation; reinforced concrete floors; steel beams and girders; cast-iron columns; copper roofing; fireproof construction; electric wiring and fixtures; sanitary plumbing; indirect steam-heating system; banking room will have ornamental bronze screen on marble base; marble flooring; metal filing cabinets; perforated plaster ceiling; copper skylight glazed with wireglass and ornamental stained glass; basement will be divided into four large offices.

**Baltimore—Bookbindery.**—J. P. Brandon, 15 Jenkins lane, has awarded contract to the Brittingham Construction Co., builders, 8 East Lexington street, for erection of bookbindery to be located at 2427 and 2429 York road after plans and specifications by Mottu & White, architects, 402 St. Paul street. Structure to be two stories high, 36x150 feet; brick with stone trimmings; concrete foundation; steel beams and girders; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; machinery for bookbinding will be installed; cost of building to be about \$10,000.

**Baltimore—Store Building.**—The Safe Deposit & Trust Co., 13 South street, as trustee for the Alcott estate, has engaged an archi-

fect to prepare plans and specifications for store building to be located at 104 W. Baltimore street. Structure to be four stories high, 25.6 feet front; ornate brick front; concrete foundation; steel beams and girders; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

Baltimore—Warehouse.—Francis White, 341 N. Charles street, as trustee for the Janney heirs, has engaged Archer & Allen, architects, Central Savings Bank Building, Charles and Lexington streets, to prepare plans and specifications for warehouse to be located at 115, 117 and 119 Hollingsworth street. Structure to be three stories high, 35x63 feet; brick, with stone trimmings; concrete foundation; steel beams and girders; tin or slag roofing; sanitary plumbing; power elevator.

Baltimore—Warehouse.—William Elchengreen, 26 S. Howard street, has purchased the lot at 113 W. Baltimore street for \$20,000, and has engaged Louis Levi, architect, Central Savings Bank Building, Charles and Lexington streets, to prepare plans and specifications for warehouse to be located on the site. Structure to be five stories high, 20.6x131 feet; brick front, with terra-cotta trimmings; concrete foundation; steel beams; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator. This building will be occupied by William Elchengreen & Co., 20 S. Howard street, wholesale dealers in boots and shoes.

Baltimore—Warehouses.—William May, 1725 Linden avenue, will erect two warehouses to be located at 218 and 220 E. Pratt street, after plans and specifications by J. E. Laferty, architect, Builders' Exchange Building, Charles and Lexington streets. Structure to be two stories high, 25x40 feet; brick; concrete foundation; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing. Plans are now in the hands of selected bidders.

Baltimore—Warehouse.—C. D. Heller, 407 High street, has awarded contract to Frederick Decker & Son, builders, 1209 E. Biddle street, for erection of warehouse to be located at 306 N. Gay street, after plans and specifications by Jacob F. Gerwig, architect, 16 Clay street. Structure to be three stories high, 25x146 feet; galvanized-iron bow windows and buff-brick front; concrete foundation; slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; one electric elevator; cost to be about \$12,000.

Baltimore—Warehouses.—Edward Markell, Hoen Building, Lexington and North streets, has awarded contract to Harry H. Brown, builder, 109 Clay street, for erection of two warehouses to be located at 5 and 7 E. Lombard street, after private plans and specifications. Structures to be five stories high, 45.5x69 feet; Roman brick fronts, with white marble trimmings and galvanized-iron bow windows; concrete foundations; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating systems; power elevators; cost to be about \$15,000. These buildings recently mentioned in this column.

Baltimore—Dwellings.—Joseph L. White, 115 S. Broadway, will erect for himself 11 dwellings to be located on Madison street, near Bradford. Structures to be two stories high, 11x44 feet; brick, with marble trimmings; tin roofing; galvanized-iron cornice; sanitary plumbing; furnace-heating systems; cost to be about \$15,000.

Baltimore—Home Building.—The Hebrew Friendly Inn and Aged Home has purchased the building at corner Alsquith and Fayette streets, and will remodel it for its own use. Louis Levi, architect, Central Savings Bank Building, Charles and Lexington streets, has been engaged to prepare the plans for remodeling the building, and Morrow Bros., builders, 212 Clay street, have the contract for the work.

Baltimore—Municipal Docks and Wharves. It is the intention of the city to arrange as rapidly as possible for the construction of the docks and wharves for which \$5,000,000 bonds have been voted as stated last week. The improvement plans were submitted recently by N. H. Hutton, engineer for the Harbor Board. They provide that any firm may bid on the contracts, but resident labor must be employed, and the contractors will work under the general supervision of Major Hutton. When the entire work is completed the city will have six modern docks, with about 11,000 linear feet of wharf space, where between 50 and 75 large vessels can tie up. There will be about 706,000 square feet of receiving and storing space on these piers, and the changes in the shapes of present wharves will add 250,000 square feet to the navigable waters of the basin. An additional 15,000,000 gallons of water will enter the harbor each day, greatly aiding in purifying it. The docks and

wharves will be provided with the latest improved facilities for unloading and loading vessels. The Harbor Board, N. H. Hutton, engineer, will have entire charge of the contracts in connection with this improvement; offices in City Hall.

Baltimore—Store Buildings.—Further details have been obtained concerning store buildings for the estate of E. H. Trust to be located at 48, 50, 52 and 54 West Baltimore street, and plans and specifications for which were prepared by E. H. Glidden, architect, 419 North Charles street. Structures to be three stories high, 53.7x61.9 feet; colonial-brick front with terra-cotta trimmings; granite base; concrete foundations; steel beams and girders and cast-iron columns, all of which will be covered with fireproofing materials; reinforced concrete for first and second floors; slag roofing; galvanized-iron cornices; galvanized-iron skylight glazed with wireglass; terra-cotta partitions; iron and slate stairway; fire shutters; floor lights; electric wiring and fixtures; sanitary plumbing; steam-heating system; one hand elevator; three plate-glass store fronts. Plans are now in hands of selected bidders.

Baltimore—Store Building.—David Bendann, art dealer, 625 North Charles street, will erect store building to be located at 105 East Baltimore street after plans and specifications by J. E. Laferty, architect, Builders' Exchange Building, Charles and Lexington streets. Structure to be five stories high, 17.3x68.5 feet; brick front with architectural terra-cotta trimmings; Tennessee-marble base; concrete foundation; steel beams; tin roofing; metal frames and sashes; wireglass; prismatic glass; granolithic pavement; metal ceiling; electric wiring and fixtures; sanitary plumbing; steam-

age of 81 feet on Light and 200 feet on Lombard street; brick with terra-cotta trimmings; concrete foundations; steel beams and girders; cast-iron columns; electric wiring and fixtures; sanitary plumbing; steam-heating systems; power elevators.

Baltimore—Warehouse.—F. Border's Son, 212 Light street, is having plans and specifications prepared for warehouse to be located on Pratt street and running from Calvert to Cheapside. Structure to be four stories high, 33x38 feet; brick with stone trimmings; concrete foundation; steel beams; tin or slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevator.

Baltimore—Hotel.—Michael W. Ganzhorn has purchased property located on Hopkins Place, near Baltimore street, for \$25,000, and will erect hotel on the site. Structure to be four stories high, 21x100 feet; ornate-brick front; concrete foundation; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Baltimore—Store Building.—Worthington & Ahrens, architects, 8 East Lexington street, have been commissioned to prepare plans and specifications for store building to be located at 507 East Baltimore street. Structure to be three stories high, 20x66 feet; pressed-brick front with stone trimmings; concrete foundation; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$5000.

Baltimore—Warehouses.—Charles J. Bonaparte, 216 St. Paul street, has awarded contract to F. S. Jones, builder, for erection of an additional story to warehouses at 319 to 323 North street. Additional story will be

system; power elevator; cost to be about \$20,000.

Baltimore—Restaurant.—The Safe Deposit & Trust Co., 13 South street, as trustee, has commissioned Ellicott & Emmart, architects, 323 North Charles street, to prepare plans and specifications for restaurant to be located at 2 and 4 McClellans alley. Structure to be two stories high, 30x65 feet; brick with stone trimmings; concrete foundation; steel beams; tin roofing; electric wiring and trimmings; sanitary plumbing; steam-heating system; cost to be about \$10,000.

Baltimore—Warehouse.—Vonnell Bros., wholesale liquor dealers, 22 North Greene street, have awarded contract to T. B. Stanfield & Son, builders, 109 Clay street, for erection of warehouse to be located in the rear of their present one and after plans and specifications by Mottu & White, architects, 402 St. Paul street. Structure to be four stories high, 20x42 feet; brick; steel beams; slag roofing; cement floor; sanitary plumbing; electric elevator; cost to be about \$5000.

Baltimore—Restaurant.—Further details have been obtained concerning restaurant to be erected for the Mercantile Trust & Deposit Co., Calvert and German streets, at 426 East Pratt street, and plans and specifications for which were prepared by Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington streets. Structure to be three stories high, 27.8x48 feet; brick with terra-cotta trimmings; granite base; concrete foundation; steel beams; tin roofing; galvanized-iron cornice and two skylights to be glazed with wireglass; tiled floor; electric wiring and fixtures; sanitary plumbing; steam-heating system. C. L. Stockhausen, 414 East Fayette street; J. & S. H. Lamb, 233 West Preston street; F. B. Gilbreth, 211 North Liberty street; Burnham & Wells, Builders' Exchange Building; Brady & Watters, 533 St. Paul street, and John T. Buckley, 915 Bolton street, have been selected to bid on the construction.

Baltimore—Warehouse.—Francis White, 341 North Charles street, as trustee for the Janney heirs, has commissioned Archer & Allen, architects, Central Savings Bank Building, Charles and Lexington streets, to prepare plans and specifications for warehouse to be located at 118 and 120 East Pratt street. Structure to be four stories high, 42x92 feet; front to be of iron to second story, and brick and stone trimmings for the remaining stories; concrete foundation; steel beams and girders; cast-iron columns; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; power elevator.

Bank Building.—The National Exchange Bank, William T. Dixon, president, 517 West Baltimore street, has commissioned Taylor & Knowles, architects, 11½ East Pleasant street, to prepare plans and specifications for bank building to be located on Hopkins Place, German and Liberty streets. Structure to be one story high with basement, 120 feet on Hopkins Place, 86 feet on German street and 94 feet on Liberty street; electric wiring and fixtures; sanitary plumbing; steam-heating system; fireproof bank vaults. Basement will be equipped for offices.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for the Galtier estate, 224 St. Paul street, to be located at northeast corner German and Hanover streets, and plans and specifications for which were prepared by Wyatt & Nolting, architects, Builders' Exchange Building, Charles and Lexington streets. Structure to be five stories high with basement, 39.10x69.7 feet; brick front with architectural terra-cotta trimmings; granite base; concrete foundation; steel beams and girders and cast-iron columns covered with fireproofing material; tin roofing; terra-cotta and galvanized-iron cornices; cement flooring; pavement vaults and lights; fire-escape; galvanized-iron skylight; fire shutters; electric wiring and fixtures; sanitary plumbing; steam-heating system; one 2500-pound electric elevator. Henry Smith & Sons Company, 116 South Regester street; John A. Sheridan & Co., 321 North Holliday street; George A. Fuller Construction Co., 612 North Calvert street; John Cowan, 106 West Madison street; D. C. Weeks & Co., 9 North Centre street; Henderson & Co., Limited, 218 West Fayette street, and James Stewart & Co., 319 North Charles street, have been selected to bid on the construction. Bids to be in June 2.

Baltimore—Warehouse.—Thomas K. Carey, 327 Park avenue, as trustee for the King estate, has awarded contract to John Cowan, builder, 106 West Madison street, for erection of warehouse to be located at 5 Hanover street after plans and specifications by Ellicott & Emmart, architects, 323 North Charles street. Structure to be four stories high, 20x70 feet; brick with ornate front; concrete foundation; steel beams and girders; cast-iron columns; slag roofing; electric wiring

## Detailed Information

As to every building to be erected in Baltimore, its character, size, method of lighting, heating, etc., is published by the MANUFACTURERS' RECORD. Every industrial and railroad enterprise, every municipal improvement, every important building projected in the whole South is covered with the same painstaking detail in advance of all other publications. Those who need this information daily can find it in the *Daily Bulletin of the Manufacturers' Record*, subscription price \$25 a year. The *Daily Bulletin* is published every business day in the year for the purpose of enabling manufacturers, contractors, engineers and others to keep in daily touch with the rebuilding of Baltimore and the industrial, railroad and financial development of the South and Southwest.

heating system; power elevator; cost to be about \$17,000. W. H. Porter & Son, 507 East Forest street; Israel Griffith, Builders' Exchange Building, Charles and Lexington streets; Burnham & Wells, Builders' Exchange Building; John Hiltz & Son, 3 Clay street; John R. Wiggins & Co., 323 St. Paul street; Cramp & Co., 407 St. Paul street, and Morrow Bros., 212 Clay street, have been selected to bid on the construction. This building previously reported.

Baltimore—Restaurant and Store Building. F. P. McFadden, 1602 North Caroline street, has awarded contract to C. Sheehan & Son, builders, 117 East Centre street, for erection of restaurant and store building to be located at 227 East Baltimore street. Structure to be two stories high, 27x36 feet; ornate-brick front; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$7000.

Baltimore—Store Buildings.—Louis Sneiderman, 429 North Eutaw street, will erect store buildings to be located at 425 and 427 Eutaw street after plans and specifications by D. E. O. Kubitz, architect, 1904 Washington street. Structures to be four stories high; ornate-brick front; concrete foundation; tin roofing; galvanized-iron cornices; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator. Plans are now in the hands of selected bidders.

Baltimore—Warehouses.—The Safe Deposit & Trust Co., 13 South street, as trustee for the Johns Hopkins estate, has commissioned Ellicott & Emmart, architects, 323 North Charles street, to prepare plans and specifications for nine warehouses to be located at Lombard and Light streets. Structures to be four stories high, with combined front-

168x51 feet; brick with stone trimmings; tin roofing; cost to be about \$15,000.

Baltimore—Store Building.—Further details have been obtained concerning store building of Segrave & Harwood, 227 St. Paul street, to be erected at 22 and 24 East Baltimore street, and plans and specifications for which were prepared by J. E. Laferty, architect, Builders' Exchange Building, Charles and Lexington streets. Structure to be five stories high, 30x116 feet; brick with limestone and terra-cotta trimmings; concrete foundation; copper cornice; metal window frames and sashes; wireglass; prismatic glass; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

Baltimore—Banking Building.—Charles D. Fisher, Wilson Building, Charles and Saratoga streets, has engaged Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington streets, to prepare plans and specifications for banking building to be located at 114 East Baltimore street.

Baltimore—Dwellings.—John J. Ringgold, Arlington avenue and Old York road, has begun to improve about 15 acres of land as site for a residence suburb, including the construction of macadam roads. He is reported to have arranged for the construction of 40 cottages to cost about \$100,000.

Baltimore—Store Building.—The Safe Deposit & Trust Co., 13 South street, as trustee, has commissioned Ellicott & Emmart, architects, 323 North Charles street, to prepare plans and specifications for store building to be located at 104 West Baltimore street. Structure to be three stories high, 25.6x100 feet; brick front; galvanized-iron trimmings and cornice; concrete foundation; steel beams; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating

and fixtures; sanitary plumbing; steam-heating system; power elevator; cost to be about \$15,000.

**Baltimore—Store and Office Building.**—Further details have been obtained concerning store and office building for Thomas & Thompson, Charles and Mulberry streets, and Alexander Preston, 402 St. Paul street, to be erected at southeast corner Baltimore and Light streets, and plans and specifications for which were prepared by Ellicott & Emmart, architects, 323 North Charles street. Structure to be six stories high with basement, 34.8x58.9 feet; pressed-brick front with stone trimmings and metal bow windows; either steel-frame fireproof construction or reinforced concrete construction will be used throughout building; slag roof; slate on mansard roof; tile flooring; granolithic pavement; electric wiring and fixtures; sanitary plumbing; steam-heating system; power passenger elevator; metal frames and sashes; wireglass; cost to be about \$35,000. James Stewart & Co., 319 North Charles street; Richardson & Burgess, 1005 Linden avenue; John Gill & Sons, 11 East Saratoga street; Thompson-Starratt Company, 606 North Charles street; Henry Smith & Sons Company, 116 South Regester street; Morrow Bros., 212 Clay street; D. C. Weeks & Co., 9 North Centre street; Andrew J. Robinson & Co., Franklin and Cathedral streets, and John Hiltz & Son, 3 Clay street, have been selected to bid on the construction.

**Baltimore—Store Building.**—N. S. Pendleton, 529 North Charles street, has commissioned the Woodruff-McLaughlin Company, constructing engineers and architects, 100 East Lexington street, to prepare the plans and specifications for and superintend the construction of store building to be located at southwest corner Charles and Fayette streets. Structure to be five stories high with basement, 31x108 feet; gray brick with ornamental terra-cotta trimmings; ornamental-iron front to second story; concrete foundation; slag roofing; mill construction; plate-glass store front; electric wiring and fixtures; sanitary plumbing; steam-heating system; three electric elevators.

**Baltimore—Store Building.**—E. B. Hunting, 213 Courtland street, has awarded contract to J. H. Walsh & Bro., 406 South Charles street, for erection of store building to be located at southeast corner Baltimore and Frederick streets, and after plans and specifications by Edward L. Walsh, 406 South Charles street. Structure to be four stories high, 59.6x53 feet; brick with stone trimmings; concrete foundation; slag roofing; galvanized-iron cornice; fireproof vaults; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; cost to be about \$20,000.

**Baltimore—Warehouse.**—Frank T. Kirby, Westport, will erect for himself warehouse to be located at 716 and 718 West German street after private plans and specifications. Structure to be four stories high, 32x90 feet; brick with stone trimmings; concrete foundation; steel beams and girders; cast-iron columns; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; cost to be about \$5000.

**Baltimore—Apartment-house.**—Further details have been obtained concerning apartment-house for Wm. A. S. Beasley on Linden avenue, and plans and specifications for which were prepared by E. H. Glidden, architect, 419 North Charles street. Structure to be four stories high with basement, 24x91.6 feet; red-brick with bluestone trimmings; terra-cotta coping; concrete foundation; cast-iron and steel stairway; galvanized-iron bow window; sanitary plumbing; gas fixtures; steam-heating system. Plans are now in hands of selected bidders.

**Baltimore—Restaurant.**—Joseph Liberto, 1034 Hillen street, has awarded contract to the New England Construction Co., 328 North Gay street, for erection of restaurant to be located at northeast corner Pratt and Marsh Market Space after plans and specifications by Jacob F. Gerwig, architect, 16 Clay street. Structure to be three stories high, 22x37.6 feet; brick with bluestone trimmings; concrete foundation; slag roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; hot-air heating system; cost to be about \$4000. This building previously reported.

**Baltimore—Warehouses.**—Revised bids are being made, substituting mill construction for fireproof construction on warehouses for Safe Deposit & Trust Co., 13 South street, to be located at 30, 32 and 34 South Charles street and 41, 43 and 45 Hopkins Place, and plans and specifications for which were prepared by Charles E. Cassell & Son, architects, 411 North Charles street.

**Baltimore—Dwelling.**—J. E. Sperry, architect, Builders' Exchange Building, has prepared plans and specifications for dwelling for Lawrence V. Miller, 909 Cathedral street,

to be located at 909 Cathedral street. Structure to have entire new front wall and back building four stories high, 18.4x30.9 feet; sandstone for first story and basement on front, pressed-brick with sandstone trimmings remaining stories; steel beams and girders; cast-iron columns; tin and slate roofing; galvanized-iron cornice and skylight glazed with wireglass; parquet flooring; electric wiring and fixtures; sanitary plumbing; hot-water heating system. Plans are now in the hands of selected bidders for the construction.

**Baltimore—Electric light and Power Plant.** Richard B. Fentress and Summerfield B. Medaury have applied for use of the city subways, to erect poles and string wires for furnishing electricity for light and power, especially to furnish power for passenger and freight elevators. Messrs. Fentress and Medaury are president and vice-president, respectively, of the Baltimore Refrigerating & Heating Co., now furnishing steam for power and heating in the business district; offices at 408 South Eutaw street.

**Baltimore—Dwellings.**—Dr. Theodore Cooke, 314 North Charles street, has awarded contract to Jerome Love, builder, 124 Jackson street, for erection of five dwellings to be located on Fulton avenue, near Walbrook avenue, after plans and specifications by J. T. O'Leary, architect. Structures to be two stories high, 13x60 feet; brick with stone trimmings; concrete foundations; tin roofing; galvanized-iron cornices; sanitary plumbing; gas fixtures; hot-air heating systems; cost to be about \$9000.

#### Manufacturing Buildings and Other Enterprises.

**Baltimore—Mechanical Plant of Gas Company.**—The Consolidated Gas Co., 604 N. Charles street, has purchased property fronting 100 feet on Monument street and 125 feet on Front street, and will erect building for the mechanical department of the company. Plans and specifications for the building are now being prepared by an architect, whose name is withheld by the company. Structure to be three or four stories high; brick; concrete foundation; tin or slag roofing; electric wiring and fixtures; sanitary plumbing; elevator.

**Baltimore—Metals, Pipe, Fittings, etc.**—The Central Metal & Supply Co., temporarily located at S. E. corner Holiday and Centre streets, has been reorganized and increased capital stock from \$50,000 to \$75,000. Samuel M. Shoemaker, president; Albert H. Wehr, vice-president; William Schilpp, Jr., secretary and treasurer, and William L. Woultsath, general manager. The company deals in metals, pipe, fittings, valves, etc.

**Baltimore—Lumber Company.**—The Albemarle Gum Lumber Selling Association has been incorporated, with a capital stock of \$5000, for dealing in lumber, by John T. Lynch, Frank Tierney, Edward M. Gill and Alfred J. Carr, 341 St. Paul street, all of Baltimore, and Jule T. Corbin of Athens, Pa.

**Baltimore—Automobile Company.**—The Mar-Del Mobile Co., 617 W. Pratt street, has been incorporated, with a capital stock of \$1000, for dealing in automobiles, by R. J. W. Hamill, John H. Suter, Graham B. Hall, Frederick W. Maldeis and Alexander Hamill.

**Baltimore—Forwarding and Warehousing.** The American Supply Co. has been incorporated, with an authorized capital stock of \$10,000, for conducting a forwarding and warehousing business, by Edwin F. Hanna, 308 Guilford avenue; Carville D. Benson, Harry E. Karr, Saratoga and St. Paul streets, and Matthew J. Dunn of Baltimore and Henry N. Hanna of Belair, Md.

**Baltimore—Agricultural Industrial School.** Henry D. Perky of Worcester, Mass., has purchased the Filston farm of 1250 acres in Baltimore county, together with adjacent lands aggregating 750 acres. He will establish an industrial-science school for farming, both boys and girls to be received and the institution to be self-supporting. The price paid for the Filston farm and the live-stock on it was \$170,000, and probably from \$50,000 to \$80,000 additional will be expended to erect buildings and provide other accommodations for the school.

#### ALABAMA.

**Arbacoochee—Mining Development.**—The Clear Creek Mining Co., J. Trowbridge Bailly, engineer in charge, will invest \$30,000 to develop about 1500 acres of gold-bearing land; will engage in placer mining with steam dredge.

**Birmingham—Bronze Works.**—The Birmingham Bronze Co. has been incorporated, with a capital stock of \$20,000, with N. L. Mewhinney, president and treasurer; M. S. Mewhinney, secretary, and J. B. Mewhinney.

**Birmingham—Pipe Plant.**—F. E. Mesta is negotiating with New York capitalists rela-

tive to the establishment of a pipe plant with a daily capacity of 300 tons. Plans and specifications have been prepared.

**Birmingham—Lime Works.**—The Keystone Lime Co. will increase capital stock from \$25,000 to \$55,000.

**Birmingham—Oil Company.**—Vulcan Oil Co. has been incorporated to deal in lubricating and illuminating oils, greases, etc.; incorporators, W. S. Faulkner, William Gibbons, Frank G. Fretter and C. P. Orr.

**Brewton—Oil and Manufacturing.**—C. L. Sowell, Jr., W. T. Jernigan, A. McGowan, Jr., James I. Robbins and J. E. Finley have incorporated the Brewton Oil & Manufacturing Co., with \$50,000 capital.

**Decatur—Handle Factory.**—It is reported that Turner, Day & Woolworth of Louisville, Ky., will establish branch handle factory at Decatur.

**Ensley—Water works.**—The Alabama Steel & Wire Co. is testing some springs, and if the supply is sufficient will install and operate water-works plant.

**Fairhope—Telephone System.**—Eastern Shore Telephone Co. has been incorporated, with \$3000 capital, by C. L. Mershon, James Stapleton and S. S. White.

**Girard—Cotton Mill.**—Girard Cotton Mills has ordered 600 spindles and 15 looms additional, increasing equipment to 6500 spindles and 25 looms.

**Huntsville—Cottonseed-oil Mill, Fertilizer Factory, etc.**—J. E. Butler of New Hope, Ala., and J. M. Kyser of Huntsville have organized a company, with a capital stock of \$150,000, to establish and operate a cottonseed-oil mill, fertilizer factory, soap factory and ginning plant; J. M. Kyser, manager.

**Huntsville—Cotton-ropes Mill.**—New York capitalists will establish a cotton-ropes mill. Probably W. I. Wellman of Huntsville can give information.

**Lineville—Drug Company.**—L. J. Wright, J. W. Cowan and J. F. Hanks have incorporated the Lineville Drug Co., with a capital stock of \$5000.

**Oakland—Cotton Gin.**—Robert Smith is erecting four-stand cotton gin to cost about \$1000.

**Opelika—Electric light and Power Plant.**—The Opelika Railway, Light & Power Co., organized with J. B. Greene, president, and a capital stock of \$300,000, will purchase the plant of the Alabama Electric Light & Power Co. and will enlarge and improve it.

**Sheffield—Planing Mill.**—Messrs. Berkheiser and R. W. Gillett of Benton Harbor, Mich., have purchased the Sheffield Company's planing mill, and will enlarge and improve it. They will incorporate as the Sheffield Manufacturing Co., with a capital stock of \$100,000.

#### ARKANSAS.

**Bradley—Cotton Gin.**—The Bradley Gin Co. has been incorporated, with a capital stock of \$10,000, of which \$3000 has been subscribed, to operate cotton gin; Eugene Haniter, president; E. H. Hangle, vice-president; R. R. Lee, secretary and treasurer.

**Fayetteville—Lighting Plant.**—Missouri, Kansas & Oklahoma Railroad Co. contemplates improving its lighting plant, including the installation of 120-kilowatt unit to be operated by a steam turbine. Address F. W. Frazier, 1001 N. Broadway, Oklahoma City, O. T.

**Harrisburg—Flour Mill.**—The Harrisburg Roller Mill Co. has been incorporated, with a capital stock of \$15,000, with H. L. Cook, president; Harry Holmes, vice-president; B. F. Cole, secretary and treasurer, to operate a flour and feed mill.

**Little Rock—Street Paving.**—The city will contract for paving streets at a cost of \$30,000. Theo. Hartman is engineer in charge.

**Little Rock—Milk Plant.**—F. R. Steele of Chicago, Ill., is organizing a company for the establishment of a sanitary milk plant.

**Little Rock—Coal-land Development.**—A correspondent writes that capitalists said to be represented by W. B. Green of Little Rock have taken options on 75,000 to 100,000 acres of coal land. They have taken up 10,000 acres, and will probably take up the remainder later on.

**Mena—Slate and Stone Quarries.**—The Keystone Slate Co. has been incorporated, with a capital stock of \$500,000, of which \$40,000 has been subscribed, to operate slate and stone quarries; J. W. Soady, president; J. G. Paty, vice-president; J. G. Johns, secretary and treasurer.

**Pine Bluff—Garment Factory.**—S. C. Lackland and W. M. Harrison of Muskogee, I. T., propose to establish a factory having 100 machines for manufacturing overalls, jumpers, ladies' garments, etc.

**Stuttgart—Flour Mill.**—It is reported that a flour mill with a daily capacity of 75 bar-

rels will be erected at a cost of \$15,000. J. I. Porter or Philip Reinsch can give information.

**Texarkana—Timber-land Development.**—The Dorsey Land & Lumber Co. has been incorporated, with a capital stock of \$350,000, with H. W. Dorsey of Illinois, president; S. W. Porter of Texas, vice-president; P. W. Terry of Texarkana, Texas, secretary and manager. The company has purchased 21,000 acres of land and will erect a saw-mill to convert the hardwood into lumber. Mention was recently made of the purchase of this property; offices at No. 22 Foreman Building.

#### FLORIDA.

**Jacksonville—Turpentine Plant.**—John F. Ellenberg, Jennie Ellenberg and Lewis I. Roberts have incorporated the J. F. Ellenberg Co., with a capital stock of \$25,000, to operate turpentine stills, naval-stores plants, saw-mills, etc.

**Marianna—Cottonseed-oil Mill and Guano Factory.**—The Marianna Manufacturing Co. will establish cottonseed-oil mill and guano plant.

**Miami—Planos.**—F. C. Bush, L. B. Safford and W. M. Brown have incorporated the Bush & Safford Plano Co., with a capital stock of \$10,000, to deal in planos and musical supplies.

**Jacksonville—Fertilizer Works.**—The E. O. Painter Fertilizer Co. has increased capital stock from \$100,000 to \$250,000 and has awarded contract to W. T. Cotter for the enlargement and improvement of the plant. The acid chambers and ovens are to be remodeled and docks and warehouses 110x320 feet are to be built.

**Pensacola—Timber and Lumber.**—George W. Sims, John H. Herron, John G. Ward and others have incorporated the Florida Timber Co., with a capital stock of \$100,000, to conduct timber and lumber business.

**Tampa—Electric Plant.**—The Tampa Electric Co. will meet on May 30 to vote on increasing capital stock from \$500,000 to \$600,000.

**Tatapa—Fruit-packing.**—H. T. Montgomery, T. F. Montgomery and J. J. Lunsford will apply for incorporation of H. T. Montgomery & Co. Capital stock will be \$25,000; H. T. Montgomery, president and general manager; T. F. Montgomery, vice-president, secretary and treasurer.

#### GEORGIA.

**Atlanta—Cold-storage Plant.**—J. S. Stephens & Co. of Cincinnati have acquired site 257x221 feet, upon which they will erect a cold storage warehouse and plant at a cost of \$100,000. This enterprise referred to recently as contemplated.

**Atlanta—Cottonseed-oil Mill.**—The Buckeye Cotton Oil Co. of Cincinnati, Ohio, has acquired site 700x300 feet upon which it will erect a cottonseed-oil mill and possibly add a soap-manufacturing department.

**Atlanta—Bottling Company.**—Koca-Nola Company has been incorporated by T. H. Austin, G. N. Woodfin and J. T. Waller, with a capital stock of \$50,000, and privilege of increasing to \$250,000.

**Atlanta—Drugs.**—Incorporated: Georgia Medicine & Bottling Co., with \$10,000 capital, by Joseph P. Bryan, John M. Bryan and Joseph P. Bryan, Jr.

**Beverly—Cannery.**—It is reported that the Pearl Cotton Mills is erecting cannery.

**Canton—Cotton Mill.**—Canton Cotton Mills has let contract to E. P. Short & Son of Atlanta, Ga., for erection of addition, 78x128 feet and 40x60 feet to its present building. It was stated recently that the company had contracted for its additional machinery, to include 3000 spindles and 190 looms. About \$80,000 will be expended.

**Columbus—Brick Works.**—Chartered: Columbus Brick Works, by George O. Berry, A. H. Shepard, H. M. Howard and associates, for general brick and clay manufacturing; capital \$1000.

**Columbus—Paper-Box Factory.**—It is reported that the Walton Printing Co. will establish plant for the manufacture of paper boxes.

**Dahlonega—Gold Mining.**—Dahlonega Gold Mining & Milling Co. will arrange for the completion of canal from Ball Play creek and build dredge for use on the Chestatee river.

**Macon—Water-power Development.**—Robt. L. McCabe, F. M. Marriott, Wm. A. Carlisle and Chas. F. Lowe have incorporated the Piedmont Power Co., with \$2,000,000 capital, for the purpose of developing the water-power of the Oconee and Ocmulgee rivers, etc.

**Macon—Paint and Putty Factory.**—It is reported that T. Nordau, Lebanon, N. H., will establish plant for the manufacture of paint and putty, and operate as the Kaolin Putty

and Paint Factory, the putty to be made from kaolin deposits.

**Milledgeville—Water-power-Electric Plant.** Oconee Electric Light & Power Co. is preparing to begin its proposed development of water-power on the Oconee river. It will erect a dam 32 feet high and 900 feet crest, construct canal three-quarters mile long, erect power-house and install machinery to accommodate eight units of 1000 kilowatts each and transmit power to Milledgeville and to Macon, 33 miles distant. A double-pole line will be constructed between the two cities, and it is estimated that about 10,000 horsepower will be obtained. The cost is estimated at from \$500,000 to \$750,000. Chas. F. Howe is the company's consulting engineer.

**Milledgeville—Cotton and Woolen Mills.**—New York capitalists contemplate locating cotton and woolen mills, and C. F. Howe of Milledgeville is interested in securing the enterprises.

**Milledgeville—Sewerage.**—City contemplates the construction of sewerage system, and will have surveys made by J. W. Wilcox, C. E., Macon, Ga. Address Mayor E. T. Horne.

**Pelham—Saw and Planing Mill, Dry-kiln, etc.**—Higginson Lumber Co. will rebuild saw and planing mill, single mill and dry-kiln, reported burned last week at a loss of \$50,000.

**Rome—Gas Plant.**—The plant of the Rome Municipal Gas Co. has been purchased by capitalists, and about \$15,000 will be expended for improvements.

**West Point—Cotton Mill.**—It is reported that the Langley Manufacturing Co. has ordered \$40,000 worth of additional machinery for its cotton factory.

**Winder—Cotton Mill.**—Winder Cotton Mills is increasing its capital stock from \$100,000 to \$140,000, but is not making any improvements, nor are any contemplated. Possibly 4000 spindles may be added some time in the future. This company referred to last month.

#### KENTUCKY.

**Brandenburg—Telephone System.**—Brandenburg & Big Bend Telephone Co. has been incorporated, with capital stock of \$1050, by S. B. Creceilus, William Green and M. J. Bennett.

**Columbia—Flour Mill.**—W. R. Myers contemplates erecting 200-barrel roller flour mill.

**Danville—Water-works Improvements.**—City will issue \$30,000 of bonds for enlarging and improving system of water-works; J. B. Fisher, mayor.

**Hickman—Cottonseed-oil Mill.**—Richmond-Bond Oil Co. will increase its capital stock from \$50,000 to \$100,000.

**Lebanon—Flooring.**—Lanham Lumber Co. has been incorporated, with \$12,000 capital, to manufacture parquet flooring; incorporators, Charles C. Spalding, Harry Lancaster, A. E. and P. B. Lanham.\*

**Louisville—Oil Company.**—T. L. Block, J. W. Miller and M. O. Curd have incorporated the Louisville Oil Co., with \$30,000 capital.

**Louisville—Drugs.**—Richard C. Bagby, Clarence H. Howe and Nellie A. Bagby have incorporated as Bagby & Howe, with \$5000 capital, to deal in drugs.

**Louisville—Pillow Factory.**—Somnolia Medicated Pillow Co. has been incorporated, with \$10,000 capital, by F. Hoffman, E. Clifford, 741 East Washington street, and P. M. Delus. Messrs. Hoffman and Clifford were reported last week as promoting this enterprise for the manufacture of medicated pillows.

**Louisville—Brick Works.**—Incorporated: Hillenbrand Brick Manufacturing Co., with \$30,000 capital, by Andrew P. Hillenbrand, Charles and Oscar Hillenbrand.

**Louisville—Concrete Blocks.**—It is reported that E. G. Miller of Columbus, Ohio, and a Louisville syndicate contemplate the organization of a \$100,000 stock company to manufacture concrete blocks if the tests now being made of Kentucky sands and rocks by Prof. J. F. Nelson of New Albany result satisfactory.

**Louisville—Wagon Works.**—W. T. Tingley, Spalding Coleman and Henry Chambers have incorporated the William Tingley Co., with \$25,000 capital, to manufacture wagons.

**Marion—Steam Laundry.**—Marion Steam Laundry has been organized to establish a steam laundry.\*

**Marion—Sand Works.**—Lemuel Clark will erect plant for mining and preparing sand for market; daily capacity to be 50 tons.\*

**Monticello—Glycerine Company.**—Incorporated: Walster Glycerine Co., by W. C. Hutchinson, T. C. Ramey, Monticello, and J. F. Walster, Findlay, Ohio; capital \$1500.

**Mt. Pisgah—Oil-pipe Line.**—Mt. Pisgah Oil & Gas Co. has arranged with an Eastern syndicate to construct pipe line from Wayne county, through Danville, Nicholasville, Har-

rodsburg and Somerset, to Lexington. Company will also apply for franchise to pipe the city of Danville, Ky.

**Winchester—Saw-mill.**—R. P. Scobee & Son, reported last week as to erect band-saw mill, will erect plant 34x100 feet with a capacity of from 25,000 to 30,000 feet per 10 hours of plain and quartered oak, ash, walnut, poplar and pine; R. M. Scobee, architect and engineer.\*

#### LOUISIANA.

**Abbeville—Rice Mill.**—Planters' Rice Mill Co., Limited, previously reported as having plans prepared by Honold & Gautier for the erection of rice mill, will erect building, 220x170 feet, and install machinery with a capacity of 600 barrels of rice in 12 hours. W. C. Gilmore, engineer in charge.

**Covington—Water-works.**—City contemplates constructing system of water-works; C. Z. Williams, mayor.\*

**Franklin—Saw-mill.**—It is reported that the Salt Water Lumber Co. is erecting saw-mill which will have a capacity of about 50,000 feet of cypress and hardwood a day.

**Franklin—Mercantile.**—J. N. Pharr & Sons, Ltd., has been organized, with John A. Pharr, vice-president, and Eugene A. Pharr, secretary-treasurer, to conduct general merchandise, planting and sugar-manufacturing business; capital \$400,000.

**Island—Cotton Gin.**—It is reported that a cotton gin will be erected at the Maryland plantation by Babin Bros.

**Island—Cotton Gin.**—V. & J. A. Berthelot contemplate the erection of cotton gin near Island.

**New Iberia—Paving.**—City engineer is making surveys for the construction of four miles of concrete paving, and bids for construction will soon be asked.

**New Orleans—Excelsior Works.**—Carrollton Steam Woodyard & Excelsior Manufacturing Co., Ltd., reported last week as to erect addition, has had plans prepared by Wm. Sarre for factory building 32x50 feet and warehouse 30x50 feet to replace buildings recently burned. Plant will have a capacity of 16,000 pounds of excelsior per day.

**New Orleans—Stave Factory.**—J. R. Nixon, representing Robert Nixon & Co. of Montgomery, Ala., and Liverpool, England, has purchased site on which to erect stave factory.

**New Orleans—Soap Factory.**—German-American Soap Works, recently organized by Eugene Maas and Eugene Schuck, is erecting plant for the manufacture of toilet and laundry soap.

**New Orleans—Cotton Mill.**—Capitalists will build a cotton mill, site for which has been purchased through Leo Feilman.

**Rayville—Water-works.**—Town contemplates drilling an artesian well. Address Town Clerk.

**Whitecastle—Cotton Gin.**—Reports state that Nelson Labarre contemplates the erection of cotton gin on his Grand Bayou plantation.

#### MARYLAND.

**Cumberland—Sanitary Milk Plant.**—Chartered: Tri-State Sanitary Dairy Co., with \$50,000 capital, by Thomas H. Hobbs, C. F. Walton, James M. Spear, Arthur H. Amick and James W. Thomas. Company has purchased site on which to erect \$40,000 plant to mechanically pasteurize and purify milk, cream, ices and butter.

**Cumberland—Coal Mines.**—The Summit Coal Co., previously reported as having purchased about 1000 acres of coal land near Cumberland, has been progressing with the development work. It is now building tipples, switches and sidings and installing machinery preparatory to making shipments. Geo. H. Proctor, 170 Broadway, New York, is president. Charles Connor is superintendent at the mines.

**Hutton—Tannery.**—Chartered: Garrett Leather Co., with R. A. Ravenscroft, Oakland, Md., president; J. T. Carskadon, Keyser, W. Va., vice-president; O. C. Crane, Terra Alta, W. Va., secretary-treasurer, and U. G. Palmer, Oakland, manager; capital \$150,000. This company acquires the plant of the Commonwealth Tanning Co.

**Kensington.**—Incorporated: Southern Public Service Corporation, with \$25,000 capital, by H. T. Newcomb of Kensington, J. H. Ralston, Hyattsville, Md.; John B. Sloman, Jr., and F. L. Siddons, Washington, D. C.

#### MISSISSIPPI.

**Amory—Cotton Gin and Planing Mill.**—Amory Gin & Manufacturing Co. will erect the cotton gin reported last week; also contemplates installing planer.

**Askew—Brick Works.**—J. C. Allison, J. D. Maness and others have incorporated the Askew Brick Co., with \$10,000 capital.

**Columbus—Mercantile.**—Jos. Donoghue and

associates are organizing company with \$50,000 capital to establish wholesale dry goods business.

**Columbus—Stove Works.**—Standard Stove Works of Fort Payne, Ala., referred to recently, contemplates removing its plant to Columbus and there making extensive enlargements to the plant.

**Greenville—Gas Plant.**—Company reported last week as having been granted franchise for the erection of gas plant is the Greenville Gas & Coke Co., capitalized at \$35,000. Company will erect retort-house 34x30 feet, purifying-room 28x38, between eight and nine miles of mains, will be constructed, two benches of six retorts each with capacity of about 25,000 cubic feet of gas per year. R. A. Potter, Mattoon, Ill., is engineer in charge.

**Greenville—Saw-mill.**—Planters' Lumber Co. has purchased site on which to erect \$50,000 saw-mill.

**Greenville—Furniture Factory.**—It is reported that a \$50,000 furniture factory will be established. Business League can give information.

**Greenwood—Machine Works.**—Delta Machine Works has incorporated, with \$10,000 capital; incorporators, W. M. Stevens, H. G. Kitchell and others.

**Greenwood—Creamery.**—Board of Trade is in receipt of a letter from J. Lester Williams of Nashville, Tenn., relative to the establishment of creamery in Greenwood.

**Greenwood—Woodworking Plant.**—Board of Trade is corresponding with manufacturers relative to the establishment of plant for the manufacture of crossarms.

**Grenada—Brick Works.**—Reports state that a \$25,000 stock company will be organized in connection with the Grenada Oil Mills for the establishment of sand-brick plant with a daily capacity of 20,000 bricks. John B. Perry, manager of the Grenada Oil Mills and W. F. Martin are interested.

**Hazlehurst—Live-stock and Vehicle Company.**—Ainsworth Live-Stock & Vehicle Co. has been incorporated, with \$10,000 capital, by W. M. Ainsworth, J. S. Sexton and others.

**Mendenhall—Gin and Manufacturing Company.**—Farmers' Gin & Manufacturing Co. has been incorporated, with \$25,000 capital, by W. M. Durr, C. M. Whitworth and others.

**Moselle—Chemical Plant.**—Pinewood Oil & Chemical Co. is being organized, with \$30,000 capital, for utilizing the waste of the pine forests by manufacturing all timber waste into charcoal, turpentine, tar and by-products.

**Mt. Olive—Cotton Compress.**—Mt. Olive Compress Co., reported last week as having completed organization, has had plans prepared by Mr. Greenwood of Hattiesburg, Miss., for building 16x180 feet, to contain machinery for compressing cotton; capacity 700 bales a day. About \$21,500 will be invested.

**Poplarville—Water-works.**—City is contemplating the construction of system of water-works. Address The Mayor.

**Salis—Cotton Gin, etc.**—J. M. Fletcher, W. B. Potts and others have incorporated the Salis Gin & Manufacturing Co., with \$10,000 capital.

#### MISSOURI.

**Carl Junction—Mining and Milling.**—T. C. Reddish, O. F. Elliott, David Stein and C. F. Smith have incorporated the West Lehigh Mining & Milling Co., with \$50,000 capital.

**Carthage—Mining.**—W. H. Shepherd, C. W. Landrum and B. H. Esterly have incorporated the Loyal Mining Co., with \$8000 capital.

**Carthage—Cotton Mill.**—Carthage Cotton Mills, reported incorporated last week with \$600,000 authorized capital, contemplates building a 25,000-spindle plant, 10,000 to be installed to begin with. Plans and specifications are being prepared by W. B. Smith, Whaley & Co. of Boston and Columbia, S. C. Charles O. Harrington is chairman of directors.

**Fredericktown—Milling Company.**—Madison County Milling Co. has been incorporated, with \$12,000 capital, by George O. Smith, William Gudger and George Nifong.

**Joplin—Zinc and Lead Mines.**—Excelsior Zinc & Lead Co. has been incorporated, with \$100,000 capital, by Green B. Young, Frank T. Creller and Charles Creller.

**Kansas City—Mining.**—Incorporated: Katydid Mining Co., by R. F. Campbell, W. J. Campbell and John Tillhof; capital \$8400.

**Perryville—Flour Mill.**—F. Bueckmann and associates contemplate erecting flour mill.

**Sedalia—Gas and Electric Light Plant.**—Incorporated: Sedalia Gas & Electric Co., with \$1,000,000 capital, for the erection of plant.

**Sedalia—Publishing.**—Sentinel Newspaper Co. has incorporated, with \$15,000 capital;

incorporators, C. F. Kibley, J. E. Tiedman and G. H. Scruton.

**St. Louis—Printing Plates.**—St. Louis Color-type Co. has been incorporated, with \$10,000 capital, to manufacture color process printing plates, etc., by A. C. Bremer, G. R. Schmidt and Robert Coppinger.

**St. Louis—Telephone System.**—Bell Telephone Co. has increased capital from \$4,000,000 to \$10,000,000. Company will improve and extend its lines throughout Missouri.

**St. Louis—Milling.**—Incorporated: American Milling & Purifying Co., by George H. Plant, F. E. Kaufman, W. C. Ellis, E. O. Hunter and associates, to conduct a general milling business; capital \$100,000.

**St. Louis—Construction Company.**—Consolidated Building Co. has incorporated, with \$50,000 capital, to do a general building and construction business; incorporators, W. Albert Swasey, J. F. Hayden, Joseph P. Kelly, Joseph F. Tumulty, Edwin Batdorf and associates.

#### NORTH CAROLINA.

**Big Lick—Cottonseed-oil Mill.**—Big Lick Cottonseed Oil Mill has been organized, with \$10,000 capital, by P. J. C. Elford, Alexander Howard, E. E. Elford and Dr. F. E. Hartsell, to erect an improved oil-mill plant.

**Cliffside—Cotton Mill.**—Cliffside Mills' addition, reported last week, will be two stories high, 100x164 feet, and in it will be installed from 100 to 125 looms.

**Goldboro—Mercantile.**—Chartered: A. M. Shrago Co., with an authorized capital of \$100,000.

**Marion—Water-works and Sewerage.**—City will vote June 22 on the issuance of \$30,000 of bonds for the construction of system of water-works and sewerage; J. A. McDonald, mayor.

**Rocky Mount—Ice and Fuel.**—Rocky Mount Ice & Fuel Co. has been incorporated, with \$50,000 capital, by R. H. Hicks, Elias Carr, J. W. Hines, R. S. Herring and others.

**Rutherfordton—Mineral Land.**—A Northern syndicate has purchased through R. S. Eaves 1000 acres of mineral land, gold being predominant, at \$12,000 and will develop the property.

**Salisbury—Fertilizer Factory.**—Mention was made last week of a report that the Mapes-Beverly Fertilizer Co. of Baltimore, Md., had announced its intention to build a fertilizer factory at Salisbury. Investigation has since shown that there is no such company of that name or similar name in Baltimore, and the report is known to have been entirely erroneous.

**Scotland Neck—Foundry.**—It is reported that L. Alberzett will establish foundry.

**Windsor—Pharmacy.**—H. M. Bell, J. B. Stokes, H. V. Dunston, C. H. Etheridge and Francis D. Winston have incorporated the Windsor Pharmacy Co., with \$25,000 capital.

#### SOUTH CAROLINA.

**Beaufort—Woodenware, Crates, etc.**—Commercial Company has incorporated, with \$10,000 capital, to manufacture crates, woodenware, etc.; incorporators, C. C. Townsend, R. R. Legare and C. M. Griffin. Mr. Townsend was recently reported as being interested in the establishment of factory to manufacture barrels, crates and boxes.

**Beaufort—Cotton Mill.**—Chas. Warren Davis of Augusta, Ga., is corresponding with New England capitalists relative to building a fine-yarn mill at Beaufort. Reference was recently made to a cotton mill reported as to be built.

**Bishopville—Mercantile.**—J. M. Hearne and F. Parrot have incorporated the Bishopville Dry Goods Co. with \$6000 capital.

**Charleston—Mercantile.**—Reliable Jobbing Concern has incorporated with \$12,500 capital. J. Goldman is president and secretary; M. Hornink, treasurer.

**Charleston—Furniture.**—Bierfischer Furniture Co. has been incorporated, with \$11,000 capital, by M. L. Bierfischer, C. L. Stickney and S. C. Robinson.

**Chester—Woodworking Plant.**—Incorporated: Sylecan Manufacturing Co., with \$10,000 capital, to manufacture woodwork of all kinds; incorporators, W. S. Lee, Jr., and J. C. Cauthen.

**Columbia—Cottonseed-oil Mill, Brick Works and Cannery.**—Taylor Manufacturing Co. will be organized, with Thomas Taylor, Jr., president; Dr. B. W. Taylor, secretary, and B. F. Taylor, treasurer and manager, for the erection of four to six-press oil mill; also to manufacture brick and can and pickle vegetables. Company will erect oil refinery later. About \$75,000 will be invested. Messrs. Taylor were reported last week as to erect cottonseed-oil mill.\*

**Little Mountain—Cottonseed-oil Mill.**—J. K.

Lathan, J. B. T. Scott, J. B. Derrick, J. K. Derrick and James E. Shealey have organized company with \$20,000 capital to erect cottonseed oil mill.

Marion—Lumber.—Incorporated: Wallace Lumber Co. with \$10,000 capital.

Marion—Strawberry Farm.—W. McG. Buck and G. R. Reaves are organizing company to plant and cultivate 200 acres in strawberries.

Newberry—Cottonseed-oil Mill.—Farmers' Oil Mill, reported incorporated last month with \$30,000 capital to build cottonseed-oil mill, will increase capital stock to \$40,000.

Paxville—Cotton Gin.—Independent Cotton Oil Co. has purchased site on which to erect cotton gin.

Pomario—Cottonseed-oil Mill.—Chartered: Pomario Oil Mill, with \$20,000 capital. Company was reported last month as to be organized by J. W. Sumner to erect cottonseed-oil mill.

Troy—Cottonseed-oil Mill.—Troy Mill has been incorporated with \$20,000 capital. L. O. Bluford, John C. Kennedy and A. J. Davis were mentioned last month as to organize company to erect 20-ton oil mill.

Rock Hill—Sewerage.—City is contemplating the construction of system of sewerage. Address The Mayor.

Rock Hill—Cotton Mill.—Arcade Cotton Mills contemplates adding 6000 spindles; present equipment 6932 ring spindles and 314 looms. Company will hold meeting June 21 to vote on issuing \$60,000 additional stock.

Sumter—Dental Manufacturing.—Dental Moto Manufacturing Co. has been incorporated by W. B. Alford, W. B. Burns and G. A. Lemmon, with \$12,000 capital, to market dental goods.

#### TENNESSEE.

Brownsville—Cottonseed-oil Mill.—Brownsville Cotton Oil Co. has increased capital from \$50,000 to \$75,000.

Carthage—Lumber Mills.—Aldery, Edwards & Co., Paris, Ky., state there is no truth in the report mentioned last week that they would establish lumber-yards and erect mills.

Chattanooga—Fire-brick Company.—Miller-Burness Fire-Brick Co. has increased capital from \$20,000 to \$50,000.

Chattanooga—Manufacturing Drugs.—Chartered: Chattanooga Medical Dispensary, with \$10,000 capital, to establish plant at Alton Park for the manufacture of proprietary medicines, chemicals and drugs; incorporators, J. A. Bean, F. F. Cummings, Saml. Hutnar, R. C. Hammon and Huz Miller.

Chattanooga—Lumber Manufacturing.—Chartered: Orange Grove Lumber & Manufacturing Co., by C. M. Sternburgh, H. W. Tripp, H. C. Piper, C. C. Arnold and J. R. Barnes to operate the plant of the Neese Lumber Co., manufacturing boxes, crates, laths, etc.

Chattanooga—Spoke Factory.—Lion Spoke Works, lately reported incorporated by H. W. Bagg of Waldron, Tenn., and associates, will erect buildings 40x100 and 60x80 feet and install machinery for daily capacity of 5000 spokes.\*

Chattanooga—Chartered: Chattanooga Waft Co., with \$30,000 capital, by T. E. Felkner, H. H. Hinson, J. S. Connor, J. E. Pope and E. S. Rothraff.

Clarksville—Fertilizer Factory.—Business Men's Association is corresponding with parties relative to the establishment of \$20,000 fertilizer factory.

Dickson—Brick manufacturing.—Will Lowell, J. O. Mahon, V. B. Miller, C. M. Lowell and others have incorporated the Dickson Brick & Manufacturing Co. with \$5000 capital.

Franklin—Water-works.—City has voted the issuance of \$50,000 of bonds for the construction of water-works. Address The Mayor.

Jellico—Water-works.—City is contemplating the construction of system of water-works; W. T. Lewis, mayor.

Jackson—Printing Plant.—Thos. R. McCowat, W. H. Hawkins, J. E. Mercer, R. A. Hurt and R. F. Spragins have incorporated the McCowat-Mercer Printing Co., with \$25,000 capital, to take over the business of the T. R. McCowat Job Printing Co.

Knoxville—Machine Works.—W. J. Savage has established plant for manufacturing flour-mill, marble-mill and power-transmission machinery.

Glenraven—Flour Mill.—F. G. Ewing is installing machinery for a \$3500 flouring mill to be operated by electricity.

Knoxville—Water-works.—City will vote July 2 on the issuance of bonds for the construction of system of water-works; W. H. Gass, mayor.

Knoxville—Educational.—J. C. Woodard, James W. Baker, Hy. Woodard, Wiley M.

Luttrell and William D. Wright have incorporated the Knoxville Business College with \$15,000 capital.

Lebanon—Planing Mill.—W. G. Seagraves & Co. have purchased site on which to erect planing mill, replacing one recently burned.

Lenoir City—Car Works.—Reports state that Moore & Schley, 80 Broadway, New York, N. Y., have purchased the plant of the Southern Car & Foundry Co. at \$60,000 and will operate it.

Loudon—Chartered: Eason-Norwood Company, with \$20,000 capital; incorporators, J. F. Eason, Avery Norwood, Fred Jones, Jas. Jones and F. A. Weiss.

Maryville—Stove Works.—Golden Rule Stove Factory, Mr. Halliday, manager, will establish plant for the manufacture of stoves. About \$20,000 will be invested.

Memphis—Paint Factory.—True Tagg Paint Co., previously reported to erect paint factory, is having plans prepared by B. C. Alsop for the erection of four-story building 120x50 feet to cost \$21,000.\*

Memphis—Cement-block Factory.—C. W. McDaniel and O. F. Frashy have purchased site on which to erect plant for the manufacture of cement stone block.

Memphis—Sanitary Milk Plant.—Company reported last week as being organized with \$75,000 capital to establish plant for the sanitary treatment of milk, will erect two-story brick and stone building, 44x146 feet. Address C. K. McLemore, Lock Box 95.

Mt. Pleasant—Mining.—American Eagle Mining Co. has been organized, with W. H. Jacobus, president; B. Weinbaum, secretary-treasurer, and Alex. Weinbaum, general manager; capital \$600,000. Company will operate in Tennessee and Georgia.

Nashville—Foundry.—Cumberland Foundry & Manufacturing Co. has increased capital from \$10,000 to \$50,000.

Petersburg—Mill.—F. L. Woods, Wm. H. Moore, J. C. McCready, W. L. Hatcher and Otto McGabey have incorporated the Valley Mill Co., with \$15,000 capital.

Shelbyville—Planing Mill.—It is reported that W. A. Shapard and associates will erect planing mill to be operated by electricity.

#### TEXAS.

Amarillo—Townsite Company.—Incorporated: Wildorado Townsite Co., with \$10,000 capital, by J. H. Gouldy, H. B. Sanborn and J. R. Goodman.

Amarillo—Sewerage.—City contemplates constructing system of sewerage; S. Lightburne, mayor.

Austin—Gas Plant.—Austin Gas Co. will enlarge plant and extend its mains.

Austin—Oil Wells.—Chartered: Sutherland Oil Co., by E. F. Lanham and Theodore Low of Austin and S. W. White of San Antonio, to prospect for oil and gas.

Ballinger—Lumber Company.—W. P. Humphrey and D. M. Baker of Ballinger and W. A. Bourne of Fort Worth, Texas, have incorporated the Humphrey Lumber Co., with \$20,000 capital.

Beaumont—Fair Association.—Chartered: Beaumont Fair Association, with \$50,000 capital; incorporators, E. A. Fletcher, J. T. Gossett, Walter A. Myrick and Q. B. Brock.

Beaumont—Oil Wells, etc.—Incorporated: Wilson-Broach Company, to prospect for oil and other minerals, by J. C. Wilson, G. L. Adslit of Beaumont, W. E. Broach, H. F. Broach, Jr., B. J. Carter and associates of Meridian, Miss.

Brenham—Gas Plant.—F. D. Lyon, 226 Blinz Building, Houston, Texas, reported last week as applying for gas franchise, will construct \$20,000 plant with a daily capacity of 25,000 cubic feet. Henry A. Bradley, Houston, Texas, is engineer in charge.\*

Carizzo Springs—Irrigation System.—It is reported that J. G. Childers and E. G. Scales of Temple, Texas, have purchased 36,000 acres of land, and will establish irrigation system.

Cleburn—Lumber Company.—Cleburn Lumber Co. has increased capital from \$50,000 to \$100,000.

Dalhart—Water-works.—C. A. Smith, Denver, Col., has franchise to construct system of water-works to cost not less than \$30,000.

Dallas—Real Estate.—Texas Home Investment Co. has incorporated, with \$50,000 capital; incorporators, J. J. Metcalf, Lee Peeler, William D. Simpson and others.

Dallas—Transfer Company.—Mark Lowrey, J. H. Turney and N. G. Turney have incorporated the Dallas Transfer & Cab Co., with \$50,000 capital, to acquire and operate a line of cabs, transfers, etc.

Dallas—Machinery.—Briggs-Weaver Machinery Co., with \$150,000 capital, by C. H. Briggs, J. C. Weaver and J. E. Thatcher.

Denton—Artesian Wells.—College Addition Water & Power Co. has been organized, with \$5000 capital, to drill artesian well to supply a portion of the city with water, and will lay about 2350 feet of mains. John A. Hann is president, and S. W. Kanady, secretary.

Dublin—Land and Cattle Company.—Higginbotham Land & Cattle Co. has been incorporated, with \$100,000 capital, to raise, buy and sell live-stock; incorporators, J. M. Higginbotham, R. W. Higginbotham, J. R. St. Clair and W. B. Williams.

Duffau—Cotton Gin.—Reports state that John Wilson and Mack Jordan contemplate erecting cotton gin.

Ferris—Electric-light Plant.—Ferris Press Brick Co. contemplates the installation of dynamo for furnishing the city with electric lights.

Fort Worth—Water Supply.—Wm. Capps, James H. Thrasher and Wm. M. Stewart have incorporated the Fort Worth Sprinkling Co., with \$10,000 capital, to supply water for street sprinkling.

Fort Worth—Cannery.—It is reported that Armour & Co. contemplate the erection of cannery in connection with their packing plant.

Gainesville—Brick Works.—Gainesville Brick Co. has increased capital from \$20,000 to \$40,000.

Hillsboro—Acetylene Lighting.—Matthews Acetylene Lighting Co. has incorporated with \$2000 capital; incorporators, W. C. Matthews, Horton B. Porter, F. Earle and others.

Justin—Grain Elevator.—Richardson Company is erecting 15,000-bushel grain elevator.

Laredo—Pumping Plant.—T. W. Dodd will erect \$100,000 pumping plant to irrigate 4000 acres of land.

Marble Falls—Water-works Improvement. Marble Falls Water & Power Co. will enlarge plant, install new machinery and extend its mains.

Naples—Cottonseed-oil Mill and Cotton Gin. A company has been organized with H. B. Moore, president; C. H. Bohn, vice-president, and J. C. Martin, secretary-treasurer, to operate a cottonseed-oil mill and cotton gin; capital \$25,000.

Paint Rock—Cotton Gin.—J. W. Norton, A. L. Burke, W. C. Montgomery, Ed Dozier and D. E. Sims have incorporated the Farmers' Gin Co., with \$6000 capital, to operate cotton gin.

Rhame—Grain Elevator.—Rhame Milling Co. is erecting grain elevator with a capacity of 60,000 bushels.

San Antonio—Pickle Factory.—Price-Booker Manufacturing Co. has purchased site on which to erect pickle factory. About \$15,000 will be invested in buildings and equipment.

San Antonio—Real Estate.—Commonwealth Land & Improvement Co. has incorporated, with \$20,000 capital; incorporators, Joseph Zentor, J. B. Callahan and H. G. De Jagers.

San Antonio—Electric-light, Gas and Power Plant.—City is prepared to grant franchise for the construction of electric-light, gas and power plant for lighting the city streets and alleys. Address Geo. F. Stuenkel, city clerk.

Sherman—Gas Plant.—F. D. Lyon of Houston, Texas, and associates have applied for franchise to construct gas plant.

Victoria—Cannery.—Reports state that the Business Men's Association has under consideration a proposition from an Iowa capitalist for the establishment of a cannery.

Waxahachie—Cotton Gin.—L. H. Peters is erecting cotton gin, building of brick, to cost about \$15,000.

Weatherford—Foundry and Planing Mill.—Incorporated: Weatherford Machine & Foundry Co., with \$10,000 capital, to operate foundry and planing mill; incorporators, E. A. Frantz, J. R. Lewis, W. E. Tate, S. S. Bedinger, Robert Barnhill and others.

#### VIRGINIA.

Fredericksburg—Water-power Development. Northern capitalists previously reported as having purchased water-power property for development, constructing dam, etc., have organized with Joseph Swift of Wilmington, Del., president, and E. J. Cartright of Fredericksburg, director; maximum capital \$200,000.

Front Royal—Electric-light Plant.—City will vote May 26 on the issuance of \$15,000 of bonds for the construction of electric-light plant at Kenner's dam at Riverton. Address The Mayor.

Hampton—Oyster Company.—Old Point Comfort Oyster Co. has been incorporated, with \$50,000 capital. Judge S. J. Dudley is president, and J. E. Warren, secretary. Company has purchased 120 acres of oyster ground in the James river, and will expend \$15,000 in improving same.

Newport News—Coal Docks.—Newport News Docks and Coal Corporation, reported incorporated last week with \$10,000 capital, has purchased 150 feet of water-front property near Newport News at \$47,000 and will build docks for coaling vessels, etc.; C. J. Wittenberg, president, No. 11 Broadway, New York.

Portsmouth—Mantel-manufacturing.—Incorporated: Southern Mantel & Grate Manufacturing Co. with capital of \$40,000. W. G. Melvin is president.

Pulaski—Flour Mill.—Pulaski Mills will remodel mill, installing new machinery and increasing capacity from 150 to 200 barrels per day.

Richmond—Furniture and Fixture Company.—American Furniture & Fixture Co. has been incorporated, with Reuben Burton, president; capital \$50,000.

Roanoke—Rolling Mill.—The Iron Company of America will be incorporated, with capital stock of \$250,000, by David S. Loucks, B. F. Overholt, L. H. Leitzell, W. W. Francis, W. L. Kelly and others, all of Scottsdale, Pa. They have purchased the West End Furnace at Roanoke, recently referred to, and will remodel the plant for manufacturing refined iron by the Robinson process, the output to be 100 tons per day. Recent reports stated that \$20,000 is to be the cost of the necessary improvements to the mill.

Salem—Public Improvements.—City will vote in June on the issuance of \$35,000 of bonds for public improvements. Address The Mayor.

Strasburg—Water-works.—City has voted affirmatively the issuance of bonds reported last week for gravity system of water-works to be constructed at a cost of about \$20,000. Address The Mayor.

#### WEST VIRGINIA.

Bluefield—Telephone and Telegraph System.—Southern Bell Telephone & Telegraph Co. has applied for franchise to construct telephone and telegraph system in Bluefield.

Bridgeport—Stogie, Broom and Canning Factory.—Moore Manufacturing Co. has been incorporated by John Moore, G. J. Brown, A. D. Fitzhugh and associates to operate canning factory, manufacture stogies and brooms, and will erect three-story building 40x75 feet, after plans by A. D. Fitzhugh Company was reported last week as being organized.

Charleston—Construction Company.—Incorporated: Imperial Construction Co., with \$5000 capital, to build and operate telephone, telegraph and electric-light plants; incorporators, Homer P. Dixon, Edward P. Lawlor, James E. Ferguson and Harlan W. Gillis.

Elizabeth—Oil Wells.—Jacob Baumgarner and others have incorporated the Baumgarner Oil Co. to prospect for oil, with \$50,000 capital.

Fairmont—Coal Mines.—Big Falls Coal Co. has incorporated with \$25,000 capital; incorporators, Lewis C. Wilfong, John W. Minot, James A. Tood and associates.

Gladwin—Saw-mill.—Rains-Andrew Lumber Co. will erect saw-mill.

Huntington—Oil and Gas Wells.—C. T. Taylor and others have incorporated the Jack Pot Oil & Gas Co. to drill for oil and gas; capital \$10,000.

Huntington—Educational.—W. A. Ripley, J. A. Ripley, Paul W. Scott, A. Williams and Alice Wuenz have incorporated the Huntington Business College; capital \$10,000.

Marlinton—Lumber Mill.—Campbell Lumber Co., John W. Campbell, president, is erecting mill.

Porterwood—Saw-mill.—H. E. Shadle will erect saw-mill with a daily capacity of 25,000 feet to replace one reported burned.

Sutton—Oil Wells.—Rosedale Oil Co. has incorporated, with \$10,000 capital, to drill for oil; incorporators, W. H. Morrison, H. H. Boggess, Karl Holly, John Newton and Geo. E. Hylar.

Welch—Coal-mining Consolidation.—Chartered: The Pocahontas Consolidated Company, with capital stock of \$5,000,000; Isaac T. Mann, president, and J. Elwood Jones, general manager. This company consolidates the coal-mining properties of the Norfolk Coal & Coke Co., Tazewell Creek Coal & Coke Co., Sagamore Coal & Coke Co., Shamokin Coal & Coke Co. and Rolfe Coal & Coke Co.

Welch—Coal Mines.—H. L. Runkle, George Crane and O. E. Rhodes of Kenton, Ohio, and George Rodamacher of Sandusky, Ohio, will consolidate the Imo Coal & Coke Co. and the McClaren Coal & Coke Co. and apply for charter of incorporation. Extensive improvements will be made to the properties, including the installation of modern electrical apparatus and air-compressing machinery, to largely increase the output of coal from the mines.

Wheeling—Water-works Improvement.—City contemplates laying new water main at a cost of \$57,000. Address J. R. Butts, president of Water Board.

Wheeling—Gas and Oil Developments.—Dispatches state that officials of the Standard Oil Co. (John D. Archbold, chairman of executive committee, 26 Broadway, New York city) are investigating with a view to further developing the natural gas and oil resources of West Virginia through the affiliated corporations, the South Penn Oil Co. and others. It is reported that expenditures of from \$2,000,000 to \$3,000,000 are contemplated. A party of the officials were touring the State during the past week.

Wheeling—Manufacturing Iron, etc.—Morgan-Howard Company has been incorporated, with \$90,000 capital, to operate in oil and gas, manufacture iron, steel and pottery; incorporators, I. D. Morgan of New Martinsville, W. Va., and others.

Wheeling—Oil and Gas Wells.—Incorporated: Huron Oil & Gas Co., by W. P. Stewart and others; capital \$800,000.

Williamson—Street Paving.—Samuel Monroe & Son, Portsmouth, Ohio, have contract at \$22,300 for paving streets previously reported.

#### OKLAHOMA TERRITORY.

Chandler—Gas, Oil and Minerals.—W. K. Gayman, F. M. Shaw, L. A. Kelly, Oliver Shaw and F. E. Waggoner have incorporated the Sylvan Gas, Oil & Mineral Co., with \$100,000 capital.

Chandler—Development Company.—D. R. Owens, John Deer and John Embrey have incorporated the Oteo Oil & Development Co. with \$15,000 capital.

Chandler—Mining.—Chandler Mining Co. of Chandler and Santa Cruz county, Arizona, has been incorporated, with \$200,000 capital, by Roy V. Hoffman, E. L. Conklin of Chandler, and Frank Dale of Guthrie, O. T.

Guthrie—Mosaic Company.—Abalone Mosaic Co. of Guthrie and San Francisco, Cal., has been incorporated, with \$100,000 capital, by G. V. Pattison of Guthrie, O. T., and J. E. Nicholson and A. Alexander of San Francisco, Cal.

Hinton—Cemetery.—M. Q. Bradbury, Herbert Caldwell, A. G. Arnold, L. R. Bidwell, C. T. Nicholson and others have incorporated the Hinton Cemetery Association.

Kaw—Oil and Gas Wells.—Incorporated: Wah-sha-she Oil & Gas Co., by Frank Gibson, C. R. Shanklin and E. U. Hickman of Kaw, Abe Gumbiner of Kansas City, Mo., and W. H. Gibson, Pittsburg, Pa.; capital \$150,000.

Oklahoma City—Cemetery.—Oklahoma City Evergreen Cemetery Association has been incorporated, with \$150,000 capital, by R. H. Wilkin, John Threadgill, M. L. Blackwelder, Robert Chowning and others.

#### BURNED.

Baton Rouge, La.—Grouchy Hotel; loss \$6000.

Brewton, Ala.—The damage to the municipal electric-light and water-works plant, reported last week, was slight and was repaired in a few days.

Columbia, S. C.—N. H. Driggers' planing mill; loss \$4000.

Eaton, Ga.—Eaton Repair Works' building; Putnam Oil & Fertilizer Co.'s weighing offices, etc.; loss \$10,000.

Florence, S. C.—Enterprise Tobacco Stemery; loss \$16,000.

Hartsfield, Ga.—Hartsfield Ginning & Manufacturing Co.'s cotton gin; loss \$6000.

Haylow, Ga.—Buffalo Yellow Pine Co.'s saw-mill; loss \$20,000.

Hopkinsville, Ky.—Hopkinsville Gas & Lighting Co.'s plant; loss \$30,000.

Jasper, Fla.—Rawls Bros.' saw-mill; loss \$12,000.

Junction City, Ark.—El Dorado Planing Mill; loss \$8000.

Kinston, N. C.—J. J. Phillips' steam saw-mill; loss \$500.

Louisville, Ky.—John Diebold's cooper shop; loss \$20,000.

Massee, Ga.—Lester Nesmith's saw-mill; loss \$1200.

Mt. Pleasant, Texas.—Tabb & Davis' cotton gin and grist mill; loss \$4000.

Neches, Texas.—Wherry Bros.' saw-mill; loss \$4000.

Oklahoma City, O. T.—Perrine Hotel and livery stable; loss \$30,000.

Ponca City, O. T.—Ponca Ice Co.'s plant, Ruemmel & Brown, St. Louis, Mo., owners; loss \$50,000.

Portsmouth, Va.—Lindsay & Co.'s mattress factory and three store buildings; loss \$80,000.

Warrensburg, Mo.—Warrensburg Steam Laundry.

#### BUILDING NOTES.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Anniston, Ala.—Postoffice.—Athens (Ga.) Contracting Co. has contract at \$98,337 to erect postoffice, previously reported.

Anniston, Ala.—School building.—The School Board has commissioned N. H. Austin to prepare plans for the \$8000 school building, and when these are out bids will be asked for.

Arcadia, Fla.—Business Block.—King Bros. will erect two-story pressed-brick building. Miller & Kennard of Tampa, Fla., are the architects.

Asheville, N. C.—Business Building.—Dr. E. A. Reed will erect three-story brick business building.

Benton, La.—Bank Building.—J. J. Glandfield has contract to erect proposed brick bank building for Bank of Benton.

Biloxi, Miss.—Sanitarium.—J. E. Green has contract at \$13,750 for sanitarium previously reported to be erected by Dr. H. M. Folks. J. E. Herbert prepared the plans. Contract for plumbing and heating has been let to Meyers & Mooney, Mobile, Ala., at \$3698.

Biloxi, Miss.—School.—City has let contract for the erection of school building to cost \$23,500. Address The Mayor.

Birmingham, Ala.—Depot.—The Seaboard Air Line Railway has awarded contract to Evans Bros. for erecting two-story depot to cost \$19,000.

Birmingham, Ala.—Brick Building.—Bids have been opened during the past week for a five-story brick building to be erected by P. B. Thomas on a lot 40x60 feet; J. B. Carr & Co., architects.

Bristol, Va.—Tenn.—Church.—Central Presbyterian Church has let contract to Wilson & Seay, Lynchburg, Va., for the erection of edifice previously reported.

Cadiz, Ky.—Jail and Jailor's Residence.—Contract for jail and jailor's residence, reported last week, has been let to Pauly Jail Building Co., St. Louis, Mo., at \$6800.

Cartersville, Ga.—Church.—Baptist congregation will erect \$15,000 edifice; John E. Barnard, pastor.

Cape Charles, Va.—Bank Building.—Mumford Banking Co. contemplates erecting bank building.

Chickasha, I. T.—Church.—B. P. Smith, chairman building committee, will open bids June 4 for the erection of brick and stone edifice for the First Christian Church. Certified check for \$250 must accompany each bid. Plans and specifications can be seen at First National and Citizens' National Banks, Chickasha, and at office of D. F. Turbyfield, architect, Oklahoma City, O. T.

Columbia, Tenn.—Bank Building.—Phoenix Bank has had plans prepared by Roy Alford for the erection of \$5000 bank building.

Columbus, Miss.—Hospital.—Drs. Davis & McKinley have accepted plans for a \$15,000 hospital to be erected at 7th street and N. Third avenue.

Columbus, Miss.—Infirmary.—Drs. Davis & Creigler are having plans prepared by R. H. Hunt, Chattanooga, Tenn., for the erection of \$20,000 infirmary.

Dallas, N. C.—Parsonage.—Presbyterian congregation contemplates erecting parsonage.

Dallas, N. C.—Parsonage.—Labe Clemmer has contract to erect proposed parsonage for the Baptist congregation.

Dallas, Texas.—Hotel.—It is reported that a hotel will be erected at Austin and Main streets; Frank L. Irvine interested.

Elkins, W. Va.—Store Building.—Gulland-Clarke Company has let contract to John O. Chenoweth, Grafton, W. Va., for the erection of store building, previously reported. Harding & Upman, Washington, D. C., prepared the plans.

Florence, S. C.—School.—City contemplates erecting \$20,000 school building. Address The Mayor.

Girard, Ala.—Jail.—The city will build a two-story brick jail. Address The Mayor.

Greensboro, N. C.—Residence.—A. E. Brown has purchased site on which to erect dwelling.

Greensboro, N. C.—Store and Office Building.—Carrie Yates will erect two-story store and office building of brick.

Greenville, S. C.—Warehouse.—Piedmont Warehouse Co. will increase capital from \$25,000 to \$50,000 and erect new warehouse with a capacity of from 10,000 to 25,000 bales of cotton.

Greenville, S. C.—Chapel.—Building committee has accepted plans by Architect E. T. McCullough for St. Andrew's Church's proposed edifice.

Greenwood, Miss.—Business Building.—Dr. T. R. Henderson has let contract to Jeaty & Co., Winona, Miss., for the erection of two-story brick and stone building, 82x25 feet, with marble floor and steel ceiling, previously reported.

Gulfport, Miss.—School.—Ola Thompson has contract to erect \$23,000 school building, previously reported.

Hardinsburg, Ky.—Temple.—E. P. Whitehead, Owensboro, Ky., is preparing plans and specifications for temple to be erected by the Masons.

Houston, Texas.—Hospital Addition.—Gauthier & Mitchell, Hot Springs, Ark., have contract to erect proposed two-story brick addition to St. Joseph's Infirmary, to cost \$15,000. Green & Swartz prepared the plans.

Hyattsville, Md.—School.—Commissioners contemplate erecting \$10,000 school building.

Jackson, Miss.—Buildings.—Deaf and Dumb Institute has had plans prepared by R. H. Hunt, Chattanooga, Tenn., for the erection of buildings at a cost of \$75,000.

Jellico, Tenn.—Hotel.—Horgan Humphrey, previously reported to erect hotel, has let contract to J. C. Africa; structure to be three stories, of brick and stone, 35x130 feet, have steam heat, electric lights and cost \$12,000. J. A. Cooley, Williamsburg, Ky., prepared the plans.

Lebanon, Tenn.—Warehouse.—Freeman & Green have purchased site on which to erect two-story brick warehouse.

Lewisburg, Tenn.—Bank Building.—People's Bank has had plans prepared for the erection of bank building.

Lewisburg, W. Va.—Church.—Methodist Episcopal Church, South, has let contract for the erection of proposed edifice to A. E. Huddleston at \$7400.

Lexington, Ky.—Bank Building.—Lexington City National Bank, reported in March as to erect eight-story bank and office building, is preparing to arrange the construction contracts, and desires to correspond with contractors. About \$150,000 will be expended. It was previously stated that Richards, McCarty & Bulford, Ruggery Building, Columbus, Ohio, are the architects furnishing plans and specifications.

Lexington, Miss.—School.—R. H. Hunt, Chattanooga, Tenn., has prepared plans for city's proposed \$20,000 school building.

Lexington, Miss.—Jail.—Holmes county contemplates erecting \$10,000 jail. Address County Clerk.

Lexington, Ky.—Depot.—It is reported that the Louisville & Nashville Railroad, Geo. E. Evans, general manager, Louisville, Ky., and the Chesapeake & Ohio Railway, C. E. Doyle, Richmond, Va., general manager, will erect union depot.

Little Rock, Ark.—Hotel.—The Board of Trade has engaged George R. Mann to prepare the plans for the \$200,000 hotel recently reported.

Little Rock, Ark.—School Building.—The school building reported last week as costing \$65,000 will cost \$100,000. Address The School Board.

Louisville, Ky.—Business Block.—John Coleman has purchased site at \$35,000 on which to erect business block.

Madison, Ga.—Bank.—First National Bank has purchased site on which to erect bank building.

Mayaville, Mo.—Home.—W. A. Powell, architect, 54 Commercial Building, St. Joseph, Mo., will open bids June 3 for four-story poorhouse, 58x49 feet, to be erected by Z. H. Savage; to be equipped with gas, hot-air heat, and cost \$7000.

McRae, Ga.—College Improvements.—South Georgia College has let contract for dormitory to be built at a cost of \$2500. An \$8000 annex will also be erected.

Mendenhall, Miss.—Courthouse and Jail.—Simpson county contemplates the construction of \$25,000 courthouse and jail. Address County Clerk.

Milledgeville, Ga.—Church.—J. W. McMillan & Son have contract to erect Presbyterian church, previously reported; structure to be of brick, 90x50 feet, equipped with electric lights, hot-air heating plant; to cost \$12,000. Padgett & Everett, Atlanta, Ga., prepared the plans.

Murfreesboro, Tenn.—School.—City is erecting school building at a cost of \$10,000. Address The Mayor.

Nashville, Tenn.—Dwelling.—W. R. Miller will erect two-story residence to cost \$7500.

Nashville, Tenn.—Church.—West End M. E. Church will expend \$5000 in improvements to church. Address The Pastor.

New Iberia, La.—Hotel and Opera-house.—Vendome Hotel & Opera-House Co., Ltd., reported incorporated last month, has had plans prepared by Stone Bros., New Orleans, La., for the erection of building 110x268 feet. About \$85,000 will be invested.

Newport News, Va.—Lodge Building.—Jas. W. Lee, architect, 13 Granby street, Norfolk, Va., will open bids June 8 for Newport News Lodge, B. P. O. E.'s proposed building. Plans and specifications furnished on deposit of \$10.

New Orleans, La.—Dwelling.—Dr. J. D. Bloom will erect four-story frame residence to cost \$17,500.

New Orleans, La.—Dwelling.—John E. Bouden has purchased site at \$5000 on which to erect residence.

New Orleans, La.—Warehouse.—Schwartz & Isaacs Company has purchased site on which to erect warehouse 32x140 feet.

Oak Hill, W. Va.—Dwelling.—J. E. Lewis is erecting \$10,000 residence.

Oklahoma City, O. T.—Auditorium, etc.—Putnam & Jones have let contract for erection of amusement hall 40x50x100 feet. An artificial lake will also be constructed.

Paducah, Ky.—Temple.—Colored Masonic Stock Co. has been incorporated, with \$10,000 capital, by S. G. Kivel, Lee Boyd, Wm. Miller, Columbus Caruthers and associates (all negroes), for the erection of three-story Masonic temple.

Richmond, Va.—Church.—Sharon Baptist Church has let contract to Heppert & Co. for the erection of its proposed two-story \$10,000 edifice of brick.

Ronoke, Va.—Parsonage.—C. C. Shockey has contract to erect \$5000 parsonage for the First Presbyterian Church, previously reported.

San Antonio, Texas.—Church.—First Baptist Church has let contract to R. O. Langworthy at \$16,317 for the erection of its proposed edifice.

San Antonio, Texas.—Lodge Building.—Woodmen of the World have let contract to Aug. Balfanz for the erection of their proposed \$6000 brick lodge building.

San Saba, Texas.—School.—City will vote June 4 on the issuance of \$15,000 of bonds for erection of school building. Address The Mayor.

Savannah, Ga.—Hospital.—Cramp & Co., Philadelphia, Pa., were the lowest bidders at \$95,900 for the construction of Marine Hospital, previously reported, and will be awarded contract.

Scottsville, Va.—School.—City will erect \$7000 brick school building to replace one recently burned. Address The Mayor.

Sealy, Texas.—School.—John T. Colleton of Bellville, Texas, and O. Johnson of Sealy have contract to erect proposed \$10,000 brick school building.

Selma, Ala.—Church.—The Christian Church, recently reported as intending to erect structure at a cost of \$20,000, will erect brick building containing main auditorium and Sunday-school room, to be equipped with electric-lighting and probably hot-water heating fixtures, at a cost of \$15,000. Bids will probably be opened in August.

Shawnee, O. T.—Church.—F. W. Tibbels, Denison, Texas, has let contract to erect proposed Catholic cathedral to cost \$20,000.

Shawnee, O. T.—School.—City has let contract to Higgins & Furnas for the erection of its proposed school building to cost nearly \$5,000.

Sistersville, W. Va.—Business Building.—W. H. Noll & Son, reported last week as to erect building, have let contract to Steele-Wagner Construction Co. for the erection of fireproof building 35x100 feet, equipped with electric lights, freight elevator, to cost \$7000.

South Hill, Va.—Bank.—Bank of South Hill will erect brick bank building.

Spring Hill, Tenn.—Dormitory.—Robert L. Taylor of Lynnville, Tenn., has contract to erect dormitory for the Braham & Hughes School.

Staunton, Va.—College Improvements.—John H. Blackburn & Bro. have contract to erect addition to Mary Baldwin Seminary after plans by T. J. Collins & Son; structure to be two stories, 60x50 feet, of mill construction, steam heat, etc.\*

Sterling City, Texas.—Courthouse.—W. M. Martin, Comanche, Texas, has contract to erect Sterling county's proposed \$23,000 courthouse.

Stratford, Texas.—School.—City will erect \$5000 school building, and bids will be called at once. Address The Mayor.

St. Louis, Mo.—Hospital.—Fred Boeke was the lowest bidder at \$115,828 for completing the new City Hospital.

St. Louis, Mo.—Office Building.—August Gehner has purchased site at \$200,000 on which to erect modern office building.

Tifton, Ga.—School.—City will vote June 22 on the issuance of \$20,000 of bonds for the erection of school building reported last week. Address The Mayor.

Towson, Md.—Elks' Home.—Local lodge, B. P. O. E., will erect \$10,000 home building.

Valdosta, Ga.—School.—City will vote on the issuance of \$35,000 of bonds for the erection of school building; M. A. Briggs, mayor.

Washington, D. C.—Residence.—Dickinson Jewett has had plans prepared by Marsh & Peter for the erection of residence.

Washington, D. C.—Dwellings.—Lyman F. Ellis will erect four three-story brick residences to cost \$25,000.

Washington, D. C.—Apartment-house.—T. C. Lewis has contract to build \$15,000 apartment-house 45x143 feet at Mt. Pleasant for John L. Warren, after plans by Hunter & Bell.

Washington, D. C.—Academy.—Sisters of Providence have let contract to the Brennan Construction Co. for the erection of \$70,000 academy building at Tenallytown, previously reported. A. O. von Herbulis prepared the plans.

Washington, D. C.—Dwelling.—Hill & Kendall are preparing plans for brick residence to be erected by Archibald M. McLachlan.

Whiteville, N. C.—School.—City has had plans prepared by H. E. Bonitz, Wilmington, N. C., for the erection of school building.

Winchester, Ky.—Hotel and Office Building. Brown & Proctor are having plans prepared by H. W. Aldenburg, Lexington, Ky., for the erection of a two-story hotel and office building 82x145 feet, of brick and stone, concrete floors, tin roof, metal cornice, gas and electric lights, steam heat, to cost \$60,000.

## RAILROAD CONSTRUCTION.

### Railways.

Anniston, Ala.—Wagon Bros. of Anniston are reported to have the contract for grading the Alabama Northern Railway extension from Pylton to Ashland, seven miles.

Auburn, Ala.—Plans and specifications for the proposed electric railway between Auburn and Opelika, Ala., have been prepared by A. St. C. Dunstan, engineer, of Auburn. The estimated cost is \$200,000.

Baltimore, Md.—Reported that Charles Selden, Jr., and others propose to build an electric railway from Hancock, Md., to Berkeley Springs, W. Va., about five miles, having acquired the Springs' hotel property, the electric-light works and the Berkeley Water Co.'s plant. John Phelps is attorney.

Beaumont, Texas.—Construction is reported resumed upon the Beaumont & Sour Lake Railway, the work at present being in preparation for more active operations.

Biloxi, Miss.—Capt. W. K. Penny is reported to be working on the plan to build an electric railway to connect Biloxi and Pass Christian.

Caddo Gap, Ark.—Mr. J. H. Hopper informs the Manufacturers' Record that the St. Louis, Iron Mountain & Southern Railroad (Missouri Pacific) is building a railroad there, the Dalhoff Construction Co. of Little Rock, Ark., being the contractor. A. J. M. Praskauer is chief engineer in charge of the work.

Chattanooga, Tenn.—The Chattanooga Waft Co. has been incorporated, with \$20,000 capital, to build and operate, as well as manufacture tramways for the conveyance of ore, coal, freight and passengers. The incorporators are J. S. Cannon, Chattanooga; F. E. Faulkner, Cincinnati, Ohio; H. H. Hinson, Columbia, S. C.; J. E. Pope, Charlotte, N. C., and E. S. Ruthrauff, Baltimore, Md.

Chicago, Ill.—Reported that the Illinois Central Railroad will put in four new passing tracks on the Paducah division. A. S. Baldwin is engineer of construction.

Clay C. H., W. Va.—The Clay Lumber Co. is reported to be building a narrow-gauge railroad up Middle creek about 15 miles.

Corpus Christi, Texas.—Reported that Johnston Bros., contractors on the St. Louis, Brownsville & Mexico Railway, have taken over the right of way contracts obtained by Ross L. Clark for the proposed Rice Belt Railroad, and will build the line from Sinton to Columbia, about 150 miles.

Dalton, Ga.—Reported that the Dalton & Alaculsky Railroad will be completed immediately. W. Burton Foote is vice-president and general manager.

Eagle Mills, Ark.—The Freeo Valley Railroad Co. has been chartered to build a line from Eagle Mills, on the St. Louis Southwestern Railroad in Ouachita county, to Princeton, in Dallas county, 25 miles. The directors are D. E. Gales, J. F. Henry, O. F. Wynan of Eagle Mills, C. D. Haywood and E. B. Haywood of Davenport, Iowa.

Fayetteville, W. Va.—The Piney River &

Loup Creek Railroad Co. of Beckley has been incorporated to build a railroad from Big White Stick, in Raleigh, to Price Hill, in Fayette county, about 12 miles. The incorporators are C. T. Jones, Martha E. Gaines, J. W. St. Clare, C. R. Summerfield and S. L. Walker of Fayetteville.

Fort Smith, Ark.—George Sengel is president; W. H. Robins, secretary, and Charles E. Stoaks, chief engineer of the proposed Fort Smith & Northern Railroad, which is to run from Fort Smith to Harrison, 132 miles.

Frostville, Ark.—The Red River Valley Railroad Co. has been chartered to build a line from a point near Frostville, in Lafayette county, to the north line of the State of Louisiana, 12 miles. The directors are E. W. Frost, E. A. Frost, Hester R. Frost, T. M. Deane and Milton Winham.

Galveston, Texas.—Reported that Col. L. J. Polk, vice-president of the Gulf, Colorado & Santa Fe Railway, whose resignation is reported, is interested in a plan to build about 150 miles of railway in connection with John W. Gates of Chicago and Col. W. T. Eldridge of Eagle Lake, Texas, the line to be from San Antonio to Pleasanton and Tilden, and thence to Laredo. Another report says that Colonel Polk and associates propose to build a line through the San Saba valley.

Greenville, S. C.—The Greenville & Knoxville Railroad Co., which proposes to build a line from Greenville to Riverview, 21 miles, has elected Hugh M. Prince, president; W. H. Patterson, vice-president and treasurer, and D. C. Patterson, secretary. The line will use the grade of the old Carolina, Knoxville & Western.

Guthrie, O. T.—The Guthrie, Fairview & Western Construction Co. has been chartered to build the proposed railroad of the same name recently described. The incorporators are W. S. McCaul of Joliet, Ill.; E. H. Shaulder and J. G. Trimble of Kansas City, and Horace Speed and Joseph McNeal of Guthrie.

Houston, Texas.—Construction is reported begun on the Southern Pacific's line from Raceland, La., to Lafourche, eight miles. E. R. Cushing is engineer maintenance of way.

Houston, Texas.—The Houston-Galveston Interurban Railroad Co. has filed its charter to build a line from Houston to Galveston, 51 miles. The directors are James R. Patton, Kansas City, Mo.; Chas. D. Graham, Fairview, Kan.; T. W. Allen, Greenup, Ill.; Walter Gresham, Galveston; W. E. Scott, W. B. Slosson, A. C. Albott and J. E. Lafferty, all of Houston.

Hoxie, Ark.—The Hoxie, Strawberry River Valley & Western Railroad Co. writes the Manufacturers' Record that its proposed line will run from Hoxie southwest via Clover Bend, on the Black river, and thence along the Strawberry river through Lawrence, Sharp and Izard counties to Franklin, total length 50 miles, with small embankment and no cuts to make. President R. S. Thomas at present has charge of engineering, and has secured right of way for the line. It is expected to begin construction soon and to reach Black river by October 1.

Huntington, W. Va.—John Sanborn is reported to have nearly completed the survey for the proposed electric railway between Huntington and Charleston on that part of the line between Huntington and Milton. The line will run via Barboursville, Ona, Milton, Culodden, Hurricane, Scott and St. Albans.

Ivan, La.—The Bodcaw Valley Railway Co. has been organized to build a line from Alden Bridge, on the Cotton Belt, to Ivan, about 12 miles, and thence further eastward.

Joplin, Mo.—Reported that work will begin here immediately on the Arkansas, Missouri & Kansas Railway between Joplin and Chanute, Kan. Contract reported let to Joseph Cerussi of Decatur, Ill. A. H. Hoxie of Boston is president, and is reported as saying that this part of the line will be in operation within a year. The entire route is from Chanute to Memphis, Tenn.

Kalamazoo, Mich.—Charles K. Fuller of Kalamazoo, Mich., will, it is reported, build a railroad near Smokefont, N. C.

Kedron, Ark.—Mr. F. Kendall writes the Manufacturers' Record that the Kearney & Sulphur Springs Railway, recently incorporated, is a logging road that is partly built, and was chartered for the purpose of getting the "Tap Line" division.

Knoxville, Tenn.—J. L. McGimpsey of Morristown and F. P. Corpening of Asheville, N. C., have, it is reported, been awarded a contract for grading one and one-quarter miles of line near Gatlin, Tenn., on the Knoxville, Laffollette & Jellico Railway.

Lake Helen, Fla.—The E. W. Bond Company, capital \$100,000, is incorporated to

build a railroad from Lake Helen to Oak Hill, 35 miles.

Lineville, Ala.—Reported that the Birmingham & Lineville Railroad has been financed, and that contract will soon be awarded for the road, which will be built from Pylton to Ashland, about seven miles. John S. Jemison and others are interested.

Louisville, Ky.—Reported that the Louisville & Nashville Railroad has secured land for additional yard and terminal facilities at Dalton, Ga. R. Montfort is chief engineer.

Lumber, Ark.—J. T. Burkett of the Camden Lumber Co. is reported as saying that a railway will be built between Magnolia and Stamps, about 17 miles.

Marlow, Ala.—The Mobile, Volanta & Pensacola Railway Co. informs the Manufacturers' Record that its chief engineer is now at work on a survey for the projected line. The officers of the company are Charles Barclay, president; Prescott A. Parker, treasurer, and Ira B. Jones, secretary.

Maysville, Ky.—Reported that an electric railway will be built from Maysville to Chillicothe, Ohio, via West Union. Dr. A. H. Luther of Dayton, Ohio, and H. E. Bauer, engineer, of Springfield, Ohio, are interested.

Meridian, Texas.—Mr. P. A. McCarthy writes the Manufacturers' Record that the officers of the Gulf & Northwestern Railway are: W. M. Knight, president, Meridian, Texas; P. A. McCarthy, vice-president and general manager, Lufkin, Texas; C. W. Tidwell, treasurer, Meridian, Texas, and N. R. Morgan, secretary, Meridian, Texas. A reconnaissance survey has been made. Contracts are being made for rights of way, bonuses, etc. Survey will begin soon and construction pushed as rapidly as possible. The proposed line is from Waco to the Texas coal fields in Palo Pinto county, 100 miles; headquarters at Meridian, Texas.

Millville, Ark.—The Ouachita Valley Railway Co. has been chartered to build a line from Millville, on the St. Louis Southwestern Railway, to Locust Bayou, 12½ miles. The directors are Stewart Gammill, John W. Clark of Millville, J. T. Henry of Eagle Mills, M. C. Smith and J. A. Freeman of St. Louis.

Nacogdoches, Texas.—Ten miles of grade are reported complete for the Nacogdoches & Southeastern Railway, which is being built by the Hayward Lumber Co. The ties are in position and six miles of rails have been received.

Nashville, Tenn.—The Tennessee Central Railroad will, it is reported, now proceed to secure rights of way for its proposed terminal line in Nashville and to build some terminal branches. G. A. Clark is general manager.

Nashville, Tenn.—Mr. J. H. Connor is reported to have been awarded the contract to build the Nashville & Columbia Electric Railway from Nashville to Franklin, with a powerhouse in Nashville and two substations between this place and Franklin. Officers of the line have been elected as follows: H. M. Gross, president, and Thomas E. Perry, Jr., vice-president, both of Pittsburgh, Pa. These officers are also directors, the other members of the board being R. S. Johnston, Thomas J. Hawkins, W. B. Bennett of Pittsburgh, H. E. Howse, J. H. McMillin, Joseph P. Fulcher, Frank P. Bond of Nashville and W. J. Whitthorne of Columbia. For the Nashville & Gallatin Electric Railway Messrs. Gross and Perry were elected president and vice-president, respectively, with J. H. Connor as general manager. The directors include them and C. W. Pope of New York, Messrs. Hawkins and Bennett of Pittsburgh, Messrs. Howse, Bond, McMillin, R. P. Webb and D. Wikie of Nashville and D. K. Spillers of Gallatin.

New York, N. Y.—Edwin Hawley, a director in the Colorado & Southern Railway, the president of which (Frank Trumbull of Denver, Col.) is also president of the Fort Worth & Denver City Railway, is reported as saying that the latter may build an extension to Galveston.

Norfield, Miss.—Reported that the Natchez, Columbia & Mobile Railroad, owned by the Butterfield Lumber Co., will build a further extension eastward. R. B. Butterfield is chief engineer.

Oklahoma City, O. T.—W. W. Kidd and L. W. Van Horn of Oklahoma City are reported to be working on a plan for a railroad between Waring and Fredericksburg, Texas, along an old grade, about 30 miles.

Onelda, Tenn.—The Tennessee Railway Co. has been incorporated to build a line from Onelda, on the Queen & Crescent Route, 10 miles to a point where Paint Rock creek empties into New River. The incorporators are Ralph S. Barnes, H. P. Robinson and H. Clay James of this, Scott county, and James D. Roberts and Samuel Sparks of Roane county.

Opelousas, La.—Mr. George T. Edwards, secretary of the Opelousas, Gulf & North-eastern Railway Co., writes the Manufacturers' Record that the proposed line is from Opelousas northeast and southwest, and it will run from Moreauville to Crowley, about 70 miles, connecting with the Louisiana Railway & Navigation Co. at Moreauville, Avoyelles parish, 35 miles from Opelousas, and with the Southern Pacific at Crowley, 27 miles. It is proposed to ultimately extend the line beyond these points. Other places on the route are Washington, Church Point, Big Cane and Pluachville. Leonce E. Little has charge of engineering and is making preliminary survey. Contracts for material, labor, etc., will be let at an early date. The officers are: Thos. H. Lewis, Sr., president; E. P. Veazie, vice-president; J. J. Thompson, treasurer, and Geo. T. Edwards, secretary.

Philadelphia, Pa.—The Cherokee Construction Co. of Philadelphia has filed notice at Guthrie, O. T., of an increase in capital stock from \$2,000,000 to \$2,500,000. It has contracts for building railroads in the two Territories. William H. Jenks is president, and H. E. Yarnell, secretary.

Pine Bluff, Ark.—Mr. Geo. W. Ritchie, one of the incorporators, writes the Manufacturers' Record that the Anderson & Saline River Railroad and the Kearney & Sheridan Railway, recently incorporated, have been in operation for years, but not as common carriers previous to the charter. Messrs. J. B. York, president; J. F. Rutherford, vice-president and secretary, and C. J. Samstag, treasurer, all of the Bluff City Lumber Co. of Pine Bluff, are among the incorporators of the line.

Portsmouth, Va.—Reported that the Seaboard Air Line will build a spur three miles long to Cliffside, N. C. W. W. Gwathmey is chief engineer.

Roanoke, Va.—Reported that the Engineering Company of America will make a survey for the proposed electric railway from Roanoke to Mt. Airy, N. C.

Roanoke, Va.—The gentlemen interested in the proposed electric railway from Roanoke to Mt. Airy, N. C., have, it is reported, appointed the following executive committee: Messrs. R. H. Angell, H. M. Darnall, Edward L. Stone, E. A. Thurnan and Robert Logan.

Roanoke, Va.—Reported that the Norfolk & Western Railway will double-track its line between Kenova, W. Va., and Portsmouth, Ohio. C. S. Churchill is chief engineer.

San Antonio, Texas.—Mr. M. D. Monserate, vice-president and general manager of the San Antonio & Aransas Pass Railway, writes the Manufacturers' Record that there is no foundation in fact for the press report that the company projects extensions from Lockhard to Austin and from Kerrville via San Angelo to connect with the Texas & Pacific Railway.

Sanford, N. C.—W. J. Edwards, president of the Atlantic & Western Railway, is reported as saying that surveys are completed from Sanford to Livingston, 25 miles, with grading done on the first four miles. The line will run from Sanford to Goldsboro, 80 miles, via Jonesboro, Lillington and Dunn. Charles Burhett is chief engineer at Sanford.

Scranton, Miss.—W. Denny & Co., lumber men, are reported to have completed a survey for their line from Moss Point to the Mobile, Jackson & Kansas City Railroad.

Shreveport, La.—Epple & Hays of Shreveport are reported to have contract for building nine miles of the Arkansas Southern Railroad's extension from Winnfield towards Alexandria.

St. Louis, Mo.—A dispatch from Ardmore, I. T., reports that the Frisco system will extend its line west from there. J. F. Hinkley, 800 Fullerton Building, St. Louis, is chief engineer of construction. Another dispatch from the same place says that a connecting switch between the Frisco and the Choctaw, Oklahoma & Gulf will be put in 15 miles east of Ardmore, and then the Frisco's track from that point to Ardmore will be taken up and used to extend the line west from Ardmore. The Frisco trains will use the Choctaw, Oklahoma & Gulf's parallel line from the connecting switch to Ardmore.

Texarkana, Ark.—The Dorsey Land & Lumber Co. will, it is reported, build a steel tramway to its lands 12 miles southeast of Texarkana.

Wares Shoals, S. C.—Grading reported in progress on the Wares Shoals Railroad, between Wares Junction and Wares Shoals, five miles. G. S. Sayre is chief engineer.

Washington, Ga.—Col. C. E. Smith is reported to be pushing plans to build the proposed Washington & Elberton Railroad.

Washington, D. C.—The Southern Railway will, it is reported, make a survey to extend the Danville & Western division from Stuart,

about 30 miles, through timber land. W. H. Wells is engineer of construction.

Weatherford, O. T.—The Colorado, Oklahoma & Southeastern Railway will run from Weatherford to Woodward, 90 miles, via Independence, Putnam, Lenora, Cestos, Mutual, Persimmon, Hackberry and Detroit. The branch from Hackberry to Gage will run via Hansen's Ranch, Doris and Buffalo Flat. A bridge 3000 feet long will be needed over the South Canadian river. Maximum grade on the line eight-tenths of 1 per cent.

Woodward, O. T.—The Denver, Woodward & Southeastern Railroad Co. has organized by electing officers as follows: President, E. S. Wiggins; vice-president, C. E. Sharp; secretary, E. B. Collins; treasurer, J. W. Magee; general attorney, A. M. Applegate. President Wiggins is reported as saying that the final survey will begin immediately, and that construction will begin near Woodward in 30 days.

Woodward, O. T.—Reported that survey is complete and rights of way are being secured for the Denver, Woodward & Southeastern Railroad.

#### Street Railways.

Baltimore, Md.—Reported that application will be made to the city council for a street-railway franchise for the Maryland Electric Railway Co. to build a line in Baltimore.

Newport News, Va.—The City Bank has petitioned the court for an issue of \$6500 of receivers' certificates to complete the Hampton Roads Electric Railway to the Old Point bridge.

Norfolk, Va.—The Standard Electric Co. of this city and also of Charlotte, N. C., has closed a contract with the Tazewell Street Railway and Tazewell Electric Light & Power Co. of Tazewell, Va., to engineer and construct their railway and light plants. The installation will consist of steam plant, two 100-horse-power boilers, 175-horse-power Corliss-type condensing engine, alternator, railway generator for street railway, cars and equipments.

Norfolk, Va.—The city council has passed and the mayor has approved an ordinance authorizing the Norfolk Railway & Light Co. to build a single-track line from the end of the double tracks on Church street, along that thoroughfare extended to La Vallette avenue and thence to Columbus avenue, thence to Holly avenue.

St. Augustine, Fla.—An ordinance for an electric railway has been introduced in the city council. T. R. Osborn and others of Jacksonville, Fla., are the promoters.

Yazoo City, Miss.—Reported that promoters have begun negotiations with the city upon a plan to build an electric railway.

### MACHINERY, PROPOSALS AND SUPPLIES WANTED.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.**

Art Glass.—Lynchburg Lodge of Elks, Lynchburg, Va., wants prices and specimen sheets on colored or cathedral glass for 18 small windows containing about seven square feet each; leaded glass desired. Address E. Goodman, Room 11, Law Building, Lynchburg.

Band Wheel.—Exchange Machine Co., Birmingham, Ala., wants one eight to nine-foot band wheel, weight about 4000 pounds.

Bank Fixtures.—See "Building Materials."

Bank Vaults, etc.—See "Building Materials."

Boiler.—See "Engine and Boiler."

Bricks.—Carolina Portland Cement Co., Atlanta, Ga., wants to correspond with manufacturers relative to securing agency for fancy pressed and repressed brick in various colors.

Bricks.—C. N. McAdoo & Co., Greensboro, N. C., want prices on 65,000 red, gray or cream-colored pressed brick delivered in Greensboro.

Building Equipment and Supplies.—John R. Wiggins & Co., builders, 323 St. Paul street, Baltimore, Md., want subbids on the

following building materials: Brick, stone and terra-cotta work, reinforced concrete, iron and steel work, millwork, roofing, electric wiring and fixtures, plumbing, steam-heating system, elevators, painting and glazing; plastering, sheet-metal work.

Building Materials.—See "Art Glass."

Building Materials.—See "Bricks."

Building Materials.—John Peirce, 277 Broadway, New York, wants prices on broken stone, sand, bricks, etc.

Building Materials.—See "Cement and Lime."

Building Materials.—George C. Thompson, Corker Building, Dublin, Ga., wants estimates on metal ceiling, marble or tile wainscoting and floors, bank fixtures, vault doors, terra-cotta cornice, hardwood mantels, etc.

Building Materials.—John H. Blackburn & Bro., Staunton, Va., want six 15-inch steel beams, 42 pounds, 16 feet 2 inches long, and two six-inch cast-iron columns 12 feet 11 inches long.

Building Supplies.—See "Metal Lathing."

Canning Machinery.—Edward B. Banks, Chipley, Fla., wants to correspond with manufacturers of canning machinery.

Canning Machinery.—Memphis Macaroni Co., 214 Front street, Memphis, Tenn., wants machinery for canning from 4000 to 5000 one-quarter-pound cans of seasoning per day.

Cement.—Sealed proposals will be received until June 4 at United States engineers' office, Montgomery, Ala., for furnishing 2000 barrels American Portland cement at Pensacola or Fort Pickens, Fla. Information furnished by J. B. Cavanaugh, captain, engineers.

Cement and Lime.—The Woodruff-McLaughlin Company, constructing engineers and architects, 100 East Lexington street, Baltimore, Md., are in the market for 20 carloads of common cement and lime in bulk.

Chemical-laboratory Equipment.—Wilkins N. Greene, Charlotte, N. C., wants supplies and apparatus for assay office and chemical laboratory, including second-hand scales, and analytical.

Cotton Compress.—H. S. Doderhoff, secretary Board of Trade, West Point, Miss., wants addresses of manufacturers of cotton compresses.

Cotton-gin Equipment.—J. L. Bostick, Milltown, Ga., wants complete gin outfit for long-staple cotton.

Crate Machinery.—H. J. Dempsey, Main street, Cedartown, Ga., wants machinery for making crates.

Crusher.—Pulaski county, James K. Wesley, road supervisor, Somerset, Ky., wants to purchase crusher.

Crushing Machinery.—Lemuel Clark, Marion, Ky., wants machinery for crushing sand rock and producing fine sand.

Dry-kiln.—Lanham Lumber Co., Lebanon, Ky., wants dry-kiln, trucks and track.

Electrical Machinery.—Edward B. Banks, Chipley, Fla., wants to correspond with manufacturers of electrical machinery.

Engine.—See "Water-works Equipment."

Engine.—Virginia Furniture Co., Chase City, Va., wants a 100-horse-power balanced-valve engine, guaranteed in perfect order and to be shipped on approval. Buyer to pay freight one way if engine is not accepted.

Engine.—Memphis Macaroni Co., 214 Front street, Memphis, Tenn., is corresponding with manufacturers relative to purchasing 14-horse-power gas engine.

Engine.—J. B. Perry, Grenada, Miss., wants 50-horse-power engine.

Engine and Boiler.—See "Paint-factory Equipment."

Engine and Boiler.—Caroline Construction Co., New London, N. C., wants 10, 15 and 20-horse-power engines and 20, 30 and 40-horse-power return tubular log boilers.

Furniture.—See "Seating."

Garbage Crematory.—Sealed proposals in triplicate will be received by L. J. Fleming, constructing quartermaster, San Antonio, Texas, until June 21 for the construction and erection of a garbage crematory complete, including buildings to inclose same, at Fort Sam Houston, Texas. Information furnished on application. United States reserves usual rights.

Gas-plant Equipment.—F. D. Lyon, 236 Binz Building, Houston, Texas, wants prices on cast-iron pipe and gasholder.

Heating Plant.—C. N. McAdoo & Co., Greensboro, N. C., want complete steam-heating apparatus for office building, five stories, 26½x150 feet, containing one store-room and 46 offices.

Hoisting Engine.—Norfolk Hardwood Co., Rooms 62-63 Haddington Building, Norfolk, Va., wants prices on double or single drum,

double-cylinder hoisting engine without boiler; size cylinders 7½x10 or 8x12.

Ice Plant.—Clayton McCrea, Zulu, Texas, wants catalogues and full information regarding small ice plant.

Lath Machine.—See "Saw-mill Equipment."

Laundry Equipment.—John L. Livers, Sweet Springs, W. Va., wants prices and catalogues on complete equipment for steam laundry.

Laundry Machinery.—Marion Steam Laundry, Marion, Ky., wants prices on machinery and equipment for steam laundry.

Leather Novelties.—V. A. Gonzales, 107 North Pryor street, Atlanta, Ga., wants addresses of manufacturers of leather novelties, such as bill-of-fare covers, telephone registers, etc.

Linseed.—Taylor Manufacturing Co., Columbia, S. C., wants to purchase linseed.

Logging Equipment.—See "Lumber Plant."

Lumber Plant.—Carolina Construction Co., New London, N. C., wants 20-inch cut-off saw with frames, stump-pullers and machine suitable to saw the stumps in six-inch blocks and chipping machine with a capacity of 20 cords per day.

Machine Tools.—J. M. Tucker, Eufaula, Ala., wants a second-hand screw-cutting lathe, nine-inch swing, new model, with set of tools.

Machine Tools.—J. B. Perry, Grenada, Miss., wants hardening cylinder and 50-horse-power engine.

Machine Tools.—P. O. Box 826, Charlotte, N. C., wants to buy first-class horizontal boring machine, second-hand, to swing 40 inches over table and about 60 inches over ways, with bed about 12 feet. State lowest cash price and full description.

Machine Tools.—W. J. Savage, 912 W. Clinch avenue, Knoxville, Tenn., wants prices on pulley keyseating machine, pulley tapping and drilling machine and a corrugating machine for chilled rolls.

Metal Lathing.—Carolina Portland Cement Co., Atlanta, Ga., wants to correspond with manufacturers of metal lathing of various designs.

Mining Machinery.—John E. Jones, Bessemer City, N. C., wants machinery for washing and cleaning tin ore.

Paint-factory Equipment.—True Tagg Paint Co., Memphis, Tenn., wants machinery and equipment for paint factory; also 75-horse-power Corliss engine, boiler, etc.

Paper-box Machinery.—Southern Can Co., Ltd., Carrollton avenue, New Orleans, La., wants addresses of manufacturers of machinery to make bodies for yeast-powder cans out of paper tubing.

Power Band Wheel.—See "Band Mill."

Power-plant Equipment.—Bureau of yards and docks, Navy Department, Washington, D. C., Mordecai T. Endicott, chief, will open bids June 11 for boilers, turbines, condensers, generators, piping, wiring, etc., installed at the naval station, New Orleans, La. Plans and specifications will be furnished by the commandant of the naval station at New Orleans or by the bureau.

Printing Plant.—Trent Printing Co., Knoxville, Tenn., wants printing press and a small lot of type.

Pumps.—Carolina Construction Co., New London, N. C., wants three size duplex steam pumps with a capacity of 20, 40 and 80 gallons per minute.

Pump Packings.—J. P. Little, Sumner, Fla., wants to correspond with manufacturers of a leather cup for packing the water end of steam pumps.

Pumps.—See "Water-works Equipment."

Railway Equipment.—R. P. Scobee & Son, Winchester, Ky., want 12-pound relaying rails.

Railway Equipment.—R. K. Papin, 402 North Fourth street, St. Louis, Mo., wants a good second-hand passenger coach; also good combination car for use on standard-gauge road.

Railway Equipment.—Tug River Lumber Co., Bristol, Va.-Tenn., wants logging locomotive, 17 to 20 tons.

Railway Equipment.—Lanham Lumber Co., Lebanon, Ky., wants trucks and track. See "Dry-kiln."

Railway Equipment.—J. B. Perry, Grenada, Miss., wants rails, iron cars, etc.

Pipe.—See "Gas-plant Equipment."

Road-building.—Pulaski county, James K. Wesley, road supervisor, Somerset, Ky., will let contract for building of roads in Pulaski county; \$6000 available.

Roofing.—Carolina Construction Co., New London, N. C., wants asbestos roofing.

Scales.—Wilkins N. Greene, Charlotte, N. C., wants second-hand scales, assay and analytical.

Saw-mill.—See "Lumber Plant."

Saw-mill Equipment.—R. P. Scobee & Son, Winchester, Ky., want three-saw edger, carriage with three blocks for rope feed without dogs, steam nigger, swing slab saw, bolter, lath machine, etc.

Seating.—Alexander & Garsed, Charlotte, N. C., want addresses of manufacturers of seats for courthouses.

Sewers.—Sewer commission, T. Grange Simons, M.D., chairman, will open bids May 25 for constructing sewers and laterals in the city of Charleston, S. C. Forms of proposals, copies of specifications and instructions to contractors may be obtained from superintendent of sewers, City Hall. Plans and profiles can be seen at office of sewer commission. Certified check for \$250, payable to order of city treasurer, must accompany each bid. Usual rights reserved.

Steelwork.—Bureau of yards and docks, Navy Department, Washington, D. C., Mordecai T. Endicott, chief, will open bids June 11 for furnishing and erecting steelwork for building No. 115, navy-yard, Washington, D. C. Plans and specifications can be seen at bureau or will be furnished by the commandant of the navy-yard, upon deposit of \$10 as security.

Structural Metal.—See "Building Materials."

Tank.—Carolina Construction Co., New London, N. C., wants a 10,000-gallon tank.

Tanks.—See "Water-works Equipment."

Telephone Equipment.—Dr. J. B. Steele, Junction City, Ky., wants prices on telephone boxes, etc.

Tiling.—See "Building Materials."

Tin Boxes.—Edwin Sutherland, 434 E. Walnut street, Louisville, Ky., wants to correspond with manufacturers relative to estimates on tin boxes in large quantities; boxes to be in one-quarter, one-half and one-pound sizes, and similar to baking-powder boxes.

Vault Doors.—See "Building Materials."

Water-works.—City of Covington, La., C. Z. Williams, mayor, wants estimates on cost of installing system of water-works.

Water-works Equipment.—Southern Drilling Co., P. O. Box 278, Chattanooga, Tenn., wants to correspond with manufacturers of air tanks, upground tanks, windmills, pumps, gasoline engines and all equipment for handling water from drilled wells.

Windmills.—See "Water-works Equipment."

Woodworking Machinery.—H. W. Bagg, Waldron, Tenn., wants second-hand lathe, also second-hand automatic facer and tenoner (either Defiance or Morris).

Woodworking Machinery.—Warrior Manufacturing Co., Fourteenth street, Birmingham, Ala., wants one 60-inch triple-drum sander; second-hand preferred.

Woodworking Machinery.—W. H. Noll & Son, Sistersville, W. Va., want second-hand pony planer.

Woodworking Machinery.—See "Crate Machinery."

Woodworking Machinery.—Lanham Lumber Co., Lebanon, Ky., wants small divided-roll double surfacer.

### MEXICO.

Acetylene-gas Plant.—Santacruz & Olivier, engineers, City of Mexico, have applied for the franchises and exemptions granted to new industries. They are organizing a company to manufacture and supply acetylene gas.

Banana-flour Mill.—A company has secured a concession from the State of New Leon for the establishment of a mill to manufacture flour from bananas. The capital will be \$500,000 (gold). Plant to be located at Monterey. Names of interested parties not stated, but probably Gen. Bernardo J. Reyes, governor of New Leon, offices at Monterey, can give information.

Copper-smelting Plant.—Reports state that the Yaqui Copper Co. of Toledo, Sonora, will double the capacity of its smelting plant.

Electric-light and Power Plant.—Miguel Morga of Yopla, Durango, has applied for concession to utilize the waters of the Soberces river for operating an electric-light and power plant which he will build.

Electric-power Plant.—It is reported that J. W. Taylor of El Paso, Texas, is about to begin the construction of a large canal to develop power for operating an electric-lighting and power plant which will be built at Guaynopita, Chi.

Gold and Silver Mines.—J. A. Coram of Boston, Mass., and capitalists of that city and of New York are organizing the Mexican Consolidated Mining & Smelting Co. to develop the Nueva Australia and Porvenir

group of gold and silver mines in the Guacacieri district of the State of Durango, Mexico.

**Gold and Silver Mines.**—J. F. Biebrich is negotiating the purchase of a group of mines containing gold and silver in the Sahuripa district. He is to pay \$20,000, and the titles are now in escrow with the Bank of Sonora at Hermosillo, Mex. Mr. Biebrich will probably develop a water-power three miles from the mines and erect a large reduction plant for treating the ores.

**Gold and Silver Mines.**—H. P. Griswold of Magdalena, Mexico, has received titles to mining properties containing gold, silver and copper, and intends to begin extensive developments.

**Gold and Silver Mining.**—John P. Johnson of Ameca, Mexico, has filed a claim for 20 pertenencias in the Ameca district, intending to mine for gold, silver and copper.

**Gold, Silver, Copper, etc.**—H. P. Griswold, C. H. Sherman and Manuel Diaz have begun the development of mining property near Imuris, Mexico. It is said they have secured 50 pertenencias, through which runs a four-foot ledge of lead, copper, gold and silver.

**Lead and Silver Mines.**—Otto Koehler and Otto Wurmund of San Antonio, Texas, and S. D. Bridge of Monterey, New Leon, have purchased the San Domingo and Hay Tunnel mining properties and will continue the developments. Silver and lead have heretofore been obtained from the mines, and a large vein of copper ore will also be developed. It is reported. Extensive improvements are to be made, and provisions made for using the most modern appliances.

**Mining.**—Marshall P. Wright and Frank Smith are to develop mining properties near Llano Station, Mexico.

**Mining Property.**—Thomas E. Boland of Torreon, Mexico, has sold the Cavelanes mines, near Durango City, to Chicago capitalists; price said to be \$500,000.

**Mining Properties.**—Prof. J. C. Carrera, Las Cruces, N. M., has taken passage for Europe to consult with European capitalists regarding the purchase and development of Mexican mining properties.

**Oil Wells.**—The Oil Fields of Mexico Co. is pushing work on its oil-well-drilling operations at Papanla, Vera Cruz. Percy N. Furber, president of the company, of London and New York, was registered at the Iturbide Hotel, City of Mexico, last week.

**Placer Deposits.**—Juan Mendoza has begun the active development of the placer deposits he recently discovered near La Paz, Lower California.

**Placer Mines.**—T. O. Phillips of Douglas, Ariz., is investigating placer ground near Nacoari, Mexico, with a view to undertaking developments.

**Placer Mines.**—A. F. Solano, Ben Koeling and associates of Magdalena, Mexico, will acquire placer mining properties in the Altar district and institute developments.

**Salt Works and Refinery.**—J. C. Bothin of San Francisco, Cal., will apply for concession to build a large salt refinery at Guaymas, Sonora. He is the lessee of the famous Carmen Island, in the Gulf of California, 120 miles southwest of Guaymas, and has been developing inexhaustible salt deposits there for the past 10 years. Mr. Bothin was registered at the Iturbide Hotel, City of Mexico, last week.

**Saw-mill.**—The Laguna Company of Chicago, Ill., is preparing to build a saw-mill of 50,000 feet capacity annually, to cut timber from tracts of land the company controls in the State of Campeche, Yucatan, embracing more than 600,000 acres. It is reported the land will cut 4,000,000 feet of mahogany, rosewood and cedar per year. Elder Nance, representing the company, was registered at the Grand Hotel, City of Mexico, during the week.

**School Building.**—Mackin & Dillon, Monterey, New Leon, have received contract to erect school building, two stories high, 60x110 feet, 16 rooms, equipped with modern facilities for school purposes. The cost will be about \$40,000 (gold).

**Smelter.**—Pan-American Metal Savings Co., Chihuahua, Chl., has chosen site for the erection of a smelter.

**Smelting Plant.**—Charles G. Codman of Monterey, New Leon, has received concession to build a modern smelter in the State of Durango.

**Smelting Plant.**—C. A. Hamilton, Max Friend and associates intend to build a smelting plant in the State of Oaxaca, capacity to be 140 tons in 24 hours and \$500,000 to be capital invested. Their exact address is not known at present, but probably letters addressed to Oaxaca City, Oaxaca, will be forwarded.

**Smelting Plant.**—Luis Garcia Teruel of the City of Mexico, F. D., will build a smelter in the State of Oaxaca.

**Telephone System.**—S. G. McMeen of Chicago, Ill., is preparing plans and specifications for telephone system to be installed in the City of Mexico.

**Timber Lands.**—The United States & Mexican Trust Co. of the City of Mexico has sold to Eastern capitalists a tract of timber land containing some 200,000 acres located in the State of Chihuahua; price about \$250,000 (gold).

**Water-power Plant.**—Antonio A. Moll has applied for concession to utilize 10,000 liters of water per second for motive power from the Ozolapam river in the State of Vera Cruz. He can probably be best addressed at the City of Mexico.

**Water-power Plant.**—Miguel S. Macedo, lawyer, and Jose Maria Velasquez, engineer, both of the City of Mexico, have applied for concession to utilize 20,000 liters of water per second from the Amates and Tomatal rivers in the State of Guerrero. They propose developing the power to operate an electric plant which they will build.

**Water-works and Sewers.**—The concession for the construction of water-works and sewers at Monterey, New Leon, has been granted to the National Water-Works & Guarantee Co. of Scranton, Pa., represented in Monterey by Col. J. A. Robertson. The city named has about 100,000 inhabitants.

#### Railways.

**Electric Railway.**—The long-projected electric street-car system for the city of Guadalupe is now assuming definite shape. W.

T. Thornton is contesting with a wealthy Mexican for the concession to install the entire system, and from the very liberal proposition Mr. Thornton has made the government of Jalisco, his chances of success are excellent.

**Steam Railroad.**—A railroad will be built connecting the port of Altata, on the Pacific, State of Sinaloa, with Toplo, State of Durango. Address Engineers Selby & Miller, San Fernando Mining Co., Toplo, Durango.

**Steam Railroad.**—It is contemplated to build a railroad connecting the Hercules mines, Jiminez, Chihuahua, with Sierra Mada. A contract with railroad builders will probably be closed within a week. Address Hercules Mining Co., Jiminez, Chihuahua.

**Steam Railroad.**—D. P. Doak and associates of St. Louis, Mo., have secured the contract for the construction and equipment of the section of the Pan-American road which will connect Tonala, in Chihuahua, with Tapachula, on the Guatemalan frontier.

**Steam Railroad.**—The Southern Pacific Railway has obtained a concession to build the Imperial branch across the Colorado desert on Mexican territory to Ensenada, the capital of Lower California. W. Hood is chief engineer at San Francisco, Cal.

**Steam Railroad.**—Reported that Frank Murphy of Arizona will build a railroad from Douglas, Ariz., to extensive timber lands in the western part of the State of Chihuahua.

**Steam Railroad.**—Reported that the Taria Iron Works Co., in which Ralph Beach of the General Electric Co. is interested, will build a railroad from Sayula to Autlan, State of Jalisco, about 75 miles.

## INDUSTRIAL NEWS OF INTEREST

### Saw-Mill and Timber Plant.

A complete saw-mill and timber plant is offered for sale by the Kile & Morgan Co. of Columbus, Ohio. The machinery and entire equipment is all in modern working condition and ready for operation. Investors are invited to send for full particulars and prices.

### A Woodworking Opportunity.

An opportunity is offered investors or manufacturers to acquire either half or whole interest in an established woodworking plant near Norfolk. This plant is prepared to produce all kinds of dwelling and office furniture. For information address the Farmers' Manufacturing Co., Norfolk, Va.

### Boat-Building Plant For Sale.

There is now offered for sale a well-located and equipped plant for building light-draft scows, barges and boats. It is close to good lumber market and cheap labor, and is suitable for other manufacturing purposes. James E. Cuthbert, Petersburg, Va., can give particulars.

### Granite Quarry for Sale.

A well-equipped granite quarry, together with 204 acres of land, is offered for sale to settle an estate. This property is located near Little Rock, and the granite from it has been used in a number of Southwestern cities. For full particulars address Eben W. Kimball, attorney for trustees, Little Rock, Ark.

### Opportunity in Underwear Knitting.

The owners of an established underwear-knitting plant in the South are desirous of enlarging their mill and seek to interest an experienced manufacturer. They state that this opening presents an excellent opportunity for an energetic man to become identified with the progress of a growing town. For information address "Opportunity," care the Manufacturers' Record.

### Mineral Properties and Plant.

Capitalists seeking investments in Southern mineral properties are advised to write James M. Couper, 514 Empire Building, Atlanta, Ga. Mr. Couper has for sale 1820 acres of iron-ore land in Georgia, 256 acres of gold-bearing lands and sapphirite deposits, also in Georgia, a 90-acre tract of ochre land with complete plant in Georgia, two copper properties in North Carolina and others. Details will be sent to inquirers.

### Sale of Textile Machinery.

Buyers of textile equipment are advised that the well-known auctioneers, Messrs. J. E. Conant & Co. of Lowell, Mass., will hold a sale of cotton-picking, carding, spinning and weaving machinery on June 1. This machinery comprises the outfit of the Hadley Mills, formerly the Glasgow Manufacturing Co., at South Hadley Falls, opposite Holyoke, Mass. A detailed catalogue can be obtained by addressing the auctioneers.

### Sale of Manufacturing Plant.

Messrs. J. E. Conant & Co., auctioneers, Lowell, Mass., will offer for sale on or about June 8 the property known as the Massachusetts Car Co. at Ashburnham, Mass. This property has been divided into three separate departments and is well suited for a large variety of manufacturing purposes. It includes modern mechanical equipment, brick and wood buildings, water-power, etc. Particulars can be obtained by addressing Messrs. Conant & Co.

### Wm. Minnigerode's New Location.

William Minnigerode announces that he has removed his office from Lynchburg to Durmid, Va., where he operates the Lynchburg Machine Works, of which he is proprietor. This change has been found necessary owing to the importance of the work at Durmid, but will not interfere with Mr. Minnigerode's brokerage business in iron and steel. Rails, fastenings, frogs, switches, cars and locomotives are among his specialties, and he also furnishes beams, channels, columns, trusses, anchors, bolts, etc., as well as a general line of machine-shop products.

### Engineering Sewage-Purification Plants.

Armour & Co., Swift & Co., Fort Worth Stockyards Co., Fort Worth, Texas, are constructing a sewage-purification plant of 1,000,000 gallons capacity for purifying the wastes of packing-houses. Messrs. Williams & Whitman, 902 Whitehall Building, New York city, are the engineers in charge. This firm of civil and sanitary engineers also has the contract to complete sewage-purification plant for the National Home of Disabled Volunteers, Johnson City, Tenn. This plant will purify the sewage from 3000 to 5000 people.

### Coal Giving Absolute Satisfaction.

Operators of power plants know what satisfaction is obtained from the use of good coal, and good coal is not infrequently difficult to buy. The John Morrison Co. of East Boston consumes a large quantity of coal, and in writing to the company furnishing its fuel supply says: "The coal we have had from you in the last four cargoes has given absolute satisfaction. It has turned out particularly lumpy and free from slate, and the quality compares favorably with any New River coal we ever had." The coal referred to is marketed by the New River Coal Sales Co. of 21-24 State street, New York city.

### H. F. Frevert, Machinery.

As a subject of interest to buyers of machinery it may be announced that H. F. Frevert, for several years manager of the New York stores of the Niles-Bement-Pond Company and the Pratt & Whitney Company, has severed his connection with those companies and established an office at 114-118 Liberty street, New York city, for the sale of machinery. Mr. Frevert is also manager of the New York office of the Norton Grind-

ing Co. of Worcester, Mass., maker of emery-grinding machinery, and of the Brightman Manufacturing Co. of Shelby, Ohio, maker of turned shafting and machines for turning, rolling, straightening and polishing shafting.

### McGowan Municipal Contracts.

The John H. McGowan Company, Cincinnati, Ohio, reports a brisk trade, especially in municipal work. It has on its books orders for pumping machinery from Ottawa, Ohio; Vermillion, Ohio; Johnstown, Ohio; Murray City, Ohio; Bardonia, Ky.; Pemberton, S. C.; Winston-Salem, N. C.; Kingston, N. C.; Hawkinsville, Ga.; Dalton, Ga.; Winona, Miss., and Columbus, Miss. These contracts aggregate a total of nearly 100,000,000 gallons capacity.

### Disc Grinding Machine.

The Patterson Disc Grinder is the maker's regular 10x1½-inch emery grinder, fitted with ball-thrust bearing and 12-inch steel disc on one end of the mandrel and an adjustable tilting table, 3x12 inches. The steel disc is reversible, held by countersunk head-screws, and emery cloth or paper discs are glued on to the sides of the disc, which is finished rough so as to make a good grinding surface. This machine is useful for grinding and finishing flat surfaces either from rough stock or when taken from the planer, shaper or milling machine. A suitable countershaft is furnished and, if desired, a gluing press. The machine is manufactured by the Miami Valley Machine Tool Co. of Dayton, Ohio.

### Interesting to Cement-Users.

There are great quantities of cement used nowadays in all kinds of construction work, and the progressive architect, engineer or contractor is on the lookout for the best possible product. "Dragon" Portland cement is a brand in very extensive use, and as its reliability becomes better known to consumers the demand steadily increases. It has been used on some of the heaviest and most important masonry in this country and in foreign countries, and its absolutely uniform quality in every detail is one of the strongest features recommending it. The manufacturer of "Dragon" cement controls about 500 acres of land containing an inexhaustible supply of some of the best cement rock in the Lehigh valley and an enormous deposit of superior quality of limestone adapted to the manufacture of the highest grade of Portland cement. The possession of such valuable sources of supply is of the utmost importance to both the manufacturer and consumer. If the raw materials are of proper quality and unlimited in quantity the question of the uniformity of the product is well assured, provided proper caution is used in their treatment. Manufacturing "Dragon" cement has developed into a science, and the utmost care is taken in every department from the time the stone is quarried until the cement is packed for shipment. This care ensures an absolutely uniform quality in every detail, for which "Dragon" Portland cement has earned a reputation during the past 15 years. The Lawrence Cement Co. of Pennsylvania, Slegfried, Pa., is the manufacturer. Its New York office is at No. 1 Broadway, and its Philadelphia office in the Harrison Building. Address either office for a book of details.

### Paint for Structural-Metal Work.

The durability of paint on the steel framing of buildings ought to receive the careful attention of Baltimore engineers and architects. It is probable that not for many years to come will it be possible to see the results of so many and diversified tests of the preservation of steel by paint as the stripping of the framing of the Baltimore buildings affords. These buildings were erected at different dates and painted in the regular trade manner without any expectation that a great conflagration would uncover their steel skeletons and permit a careful examination of their condition to be made. Much has been said about the lessons of the Baltimore fire respecting steel, concrete, terra-cotta and building stones, but the very important information to be learned concerning the protection of the steel surfaces by paint seems to be overlooked. In the case of at least one building in Baltimore the results are highly gratifying. This is the Union Trust Building, built in 1897-98, which was exposed to most severe heat. The steel-work was designed by Messrs. Purdy & Henderson, and was painted once in the shop and twice after erection with what is known in the trade as "No. 39 Superior Graphite" paint, which is regularly employed by these engineers. The steel is being stripped of its protected terra-cotta and other coverings and about a third of it is now exposed. Although these surfaces which are now open to examination were subjected to great heat,

the paint remains glossy and elastic. A few rivet heads show rust, but they are always likely to do so on account of the scale which adheres to them after being driven, and their condition is unimportant. Practically speaking, the paint remains as serviceable today as when applied six or seven years ago. Detroit Graphite Manufacturing Co., Detroit, Mich., manufactures the paint named.

### TRADE LITERATURE.

#### Chester Steel Castings Co.

The Chester Steel Castings Co., offices at 407 Library street, Philadelphia, has issued a brief illustrated pamphlet calling attention to its products. It has been engaged in the manufacture of steel castings since 1871, and is prepared to furnish castings of any shape and size from patterns furnished of open-hearth or McHaffie steel.

#### The Storage Battery in Small Central Stations.

Bulletin No. 82 of the Electric Storage Battery Co. presents a treatise on the storage battery in small central stations. It contains data that will interest progressive managers of electric plants, and refers especially to the installation of "Chloride Accumulators." For copies of the pamphlet address the company at its general offices, Allegheny avenue and 19th street, Philadelphia.

#### Vertical Double-Acting Air Pump and Jet Condenser.

The Dean Bros. Steam Pump Works of Indianapolis, Ind., is issuing a brief leaflet referring to its economic Vertical Double-Acting Air Pump and Jet Condenser, an independent apparatus for condensing engines. Manufacturers and others who use this class of equipment will find interesting facts presented in the leaflet. They should send for catalogue No. 21 if desirous of becoming further acquainted with the Dean Bros. specialties.

#### Compressing Cotton at the Gin.

The attention of cotton ginners, cotton planters, cotton buyers and spinners, railroads and transportation companies is especially invited to a pamphlet entitled "Compressing Cotton at the Gin." This publication refers to the benefit and advantage gained by the use of a compress at the gin, and should have the careful consideration of the men who are active in the above-mentioned classes, and of all men interested in the production and handling of cotton. The pamphlet is illustrated and explains in detail the practical, economical and profitable features of the Munger Ginners' Compress. This machine is manufactured and sold by the Continental Gin Co. of Birmingham, Ala., to which application can be made for copy of the pamphlet.

#### Soundings and Borings.

When it becomes necessary to determine upon the practicability of any proposed underground engineering project or deep foundation it is of the greatest importance that accurate data be obtained of the underlying strata of the earth's surface. Machinery and tools used for the soundings and borings required have been designed and manufactured for the past 17 years by the Preslar-Crawley Manufacturing Co. of Cincinnati, Ohio. This company is now issuing an illustrated booklet telling all about its equipment, including sounding and core-drill machinery for locating and testing the quality and thickness of loose and solid rock, coal and other materials to any depth, packers for testing the permeability of rock or other deep formation in any part or at any depth, subterranean anchor boat for anchoring any kind of structure to masonry or bed-rock, etc.

#### Drawing Materials and Surveying Instruments.

The manufacture of surveying instruments is an art which requires the most careful and accurate workmanship as well as the best materials in order that the product may be entirely precise in its functions. The Eugene Dietzgen Company has for many years been known as a manufacturer and importer of drawing materials, surveying instruments and the hundred and one articles of a kindred nature constantly in demand throughout the world. Its efforts to offer purchasers only high-grade goods have been well rewarded and created an ever-enlarging market for them. At the extensive Dietzgen establishments in Chicago, New York, San Francisco and New Orleans estimates and materials can be obtained, as well as from the leading dealers in all the principal cities of the United States, Canada and Mexico. The Dietzgen Company now presents to buyers its complete illustrated catalogue of more than 400 pages, listing all the

standard instruments it manufactures or imports, and calls attention to the fact that it is prepared to manufacture special instruments to order at the lowest prices consistent with high-grade work. Address the Chicago offices.

#### The Curtis Steam Turbine.

Every engineer who is interested in the development of the steam turbine should familiarize himself with the data presented in the pamphlet entitled "The Curtis Steam Turbine," by W. L. R. Emmet. The development described is based upon the original theories and inventions of C. G. Curtis of New York, whose ideas were first patented in 1895. His inventions have been the subject of experimental investigation under his own direction and that of the General Electric Co.'s engineers, the object being to establish data which would form a basis for the correct design of commercial apparatus. About two years ago these experiments gave data which showed great commercial possibilities, and since that time work has gone on on a large scale in the production of commercial machines. The contract for these machines is said to now aggregate some 230,000 horse-power in turbine-driven electric generating units, the largest size so far built being 7500 horse-power. The pamphlet mentioned is the first printed matter which has appeared on the subject. The reason for the immense demand and production without publicity in so short a time is said to be because the improvements effected are so radical in economy, simplicity and efficiency of action. All improvements in prime movers being of great importance to the engineering world, it is evident that Mr. Emmet's treatise will have wide reading among the members of the profession. Copies of the publication can be obtained by addressing the General Electric Co., Schenectady, N. Y.

#### Fiftieth Anniversary of the R. D. Cole Manufacturing Co.

Many important enterprises have been established in the South during the past decade. Some of those which have attained more than the usual success were founded before the beginning of the present era of industrial development in the South, and to one of these particular attention is being directed at this time. This one is the R. D. Cole Manufacturing Co. of Newnan, Ga., manufacturer of engines, saw-mills, grist mills, standpipes, tanks and the various other products of a modern machine-works plant. The R. D. Cole Manufacturing Co. celebrated on May 7 its semicentennial. It began business in a modest way in 1854, and has grown to such proportions that it now has on its pay-roll the names of 535 persons, and its annual output aggregates about \$600,000 worth of machinery and supplies. A handsome souvenir of the occasion has been issued. It is in the form of a book containing the history of the enterprise from its inception down to the present day, together with photographic reproductions of the earliest shops, the present extensive plant, of some of the products, and photographs of the various officials who have contributed in the past and continue to contribute toward the success of this representative Southern enterprise. R. D. Cole, Sr., is president; Matthew Cole, vice-president; R. D. Cole, Jr., superintendent; M. F. Cole, general manager; F. B. Cole, chief engineer; R. N. Cole, assistant secretary and treasurer; E. G. Cole, assistant superintendent; E. M. Cole, manager of Atlanta office, and J. S. Cole, in charge of the order department. They constitute the executive staff. The growth of this enterprise to its present proportions is a tribute to Southern industry, energy and mechanical ability. It should influence to a great degree the further progress of Newnan, its home, Georgia, its State, and be an incentive to the young men of the South looking forward to a career of usefulness in the mechanical field.

#### "A New Bird's-Eye View of Lake Winnepesaukee." Published by the Boston & Maine Railroad.

The numerous vacationists who annually journey to Lake Winnepesaukee and those persons intending to take a vacation in this section will be interested in the new publication issued by the passenger department, Boston & Maine Railroad, Boston. It is "A Bird's-Eye View of Lake Winnepesaukee," the different glens and coves on the lake and the hundreds of islands. Each mountain peak, island and cove is numbered, and at the bottom is a table giving the name of each number. This map is interesting and useful in furnishing one with the geography of the lake, and prospective vacationists and New Hampshire enthusiasts should send six cents in stamps to the general passenger department, Boston & Maine Railroad, Boston, for it.

## FINANCIAL NEWS

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Review of the Baltimore Market.

Office Manufacturers' Record,

Baltimore, Md., May 25.

The Baltimore stock market has not shown much change during the past week excepting in Northern Central stock warrants, which went down two and one-half points, and then reacted three points, most of the advance being held. There was a moderate activity in United Railways, with some little depression in figures. Consolidated Gas rose a point and a-half. Seaboard, Cotton Duck and G. B. S. Brewing were dull, and Atlantic Coast Line issues showed only a fair movement.

In the dealings United Railways common went from 6½ down to 6¼, and reacted to the opening; the incomes went from 48¼ to 47½, recovering to 49; the 4s dropped from 90 to 89 and rose again to 90; Consolidated Gas advanced from 68 to 69½. Seaboard common sold at 8, the preferred at 17, the 4s at 69½ and 70, the 10-year 5s at 97, the three-year 5s at 86½ to 87½; Cotton Duck 5s at 59½; G. B. S. Brewing incomes at 16½, and the 1sts at 47½.

Bank stock sold as follows: Citizens', 26½ to 27; Bank of Baltimore, 115 to 120½; Union, 120 to 121½; Western, 36½. Trust and other company stocks sold were: Baltimore Trust, 270; Maryland Casualty, 45.

Other securities dealt in were as follows: Atlantic Coast Line, 107½ to 107, recovering to 107½; do. Consolidated 4s, 95; do. 4s, certificates (Connecticut), 90; do. 4s (South Carolina), 100; do. new 4s, 84; Atlantic Coast Line of Connecticut, 222 and 224½; Northern Central, from 80 down to 76; Northern Central warrants (W. I.), 8¼ and 8½ down to 6, recovering to 9 and dropping back to 8¼; Southern Railway 5s, 115¼ and 115½; Metropolitan Street Railway 5s, 117; Norfolk City 4s, 90½; International Mercantile Marine preferred, 15½; Georgia & Alabama Consolidated 5s, 105 to 105½; Florida Southern 4s, 89½ to 89½; Anacostia & Potomac 5s, 97½ and 98; Atlanta Street Railway 5s, 106; Baltimore City 3½s, 1930, 107½; Georgia Southern & Florida 5s, 114¼; Georgia Pacific 1sts, 123; Atlanta Consolidated Railway 5s, 106; Lexington Street Railway 5s, 102; Pennsylvania convertible 3½s, 84; Virginia Century, 94½; Virginia Electric Railway & Development 5s, 93¼ and 94; West Virginia Central 6s, 112¼ and 112; Wilmington, Columbia & Augusta 6s, 112¼; Norfolk & Carolina 5s, 115½; Charlotte, Columbia & Augusta 1sts, 115½ and 115¼; Petersburg B 6s, 125; Columbia & Greenville 1sts, 117¼; City & Suburban (District of Columbia) 5s, 114; Northern Central 4½s, 111.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended May 25, 1904.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte	100	155	...
Georgia Sou. & Fla. 1st Pref.	100	92	95
United Railways & Elec. Co.	50	6½	6¾
Seaboard Railway Common	100	7¼	8¾
Seaboard Railway Preferred	100	16¼	17
Lexington Railway Co.	100	69	...
Atlantic Coast Line	100	106	...
Atlantic Coast Line of Conn.	100	220	225½

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank	100	100	27
Commercial & Far. Nat. Bank	100	100	...
German-American Bank	100	112	...
National Bank of Baltimore	100	120	125
National Exchange Bank	100	175	190
National Howard Bank	100	10	11
National Marine Bank	100	30	33
National Mechanics' Bank	100	19	29
National Union Bank of Md.	100	120	121
Third National Bank	100	109	115
Western National Bank	20	35	...

### Trust, Fidelity and Casualty Stocks.

Continental Trust	100	100½	105
Mercantile Trust & Deposit	50	...	134
Union Trust	50	30	40

### Miscellaneous Stocks.

G. B. & S. Brewing Co.	100	4¼	5
United Elec. L. & P. Pref.	100	27¼	29
Cotton Duck Voting Trust	100	17½	21½
Consolidated Coal	100	...	68½
George's Creek Coal	100	...	86
Consolidated Gas	100	69¼	69¾

### Railroad Bonds.

Albany & Northern 5s	100	93	...
Atlanta & Charlotte 1st 7s, 1907	100	109	109¾
Atlantic Coast Line Con. 4s	100	94½	95
Char. Col. & Aug. 1st 5s, 1910	100	115	...
Char. Col. & Aug. 2d 7s, 1910	100	119	...
Columbia & Greenville 1st 6s, 1916	100	117	118
Georgia, Car. & North. 1st 5s, 1929	100	109	...
Georgia South. & Fla. 1st 5s, 1945	100	114¼	...
Georgia Pacific 1st 6s, 1922	100	123¼	123½
Petersburg, Class B 6s, 1926	100	124¼	125½
Raleigh & Augusta 1st 6s, 1928	100	117	...
Savannah, Fla. & West. 5s, 1894	100	111	...
Seaboard & Roanoke 5s, 1926	100	107	...
Southern Railway Con. 5s, 1894	100	115	116¼
Virginia Midland 1st 6s, 1906	100	104	...
Virginia Midland 2d 6s, 1911	100	111½	...
Virginia Midland 3d 6s, 1916	100	111½	...
Virginia Midland 4th 3-4-5s, 1921	100	109	...
Virginia Midland 5th 5s, 1926	100	110	...
West. North Carolina Con. 6s, 1914	100	115	...
West Virginia Central 1st 6s, 1911	100	112	112½
Wilmington, Col. & Aug. 6s, 1910	100	112¼	...
Wilmington & Wel. Gold 5s, 1935	100	116	116½
Charleston Con. Electric 5s, 1899	100	81	...
Knoxville Traction 1st 5s, 1928	100	101½	...
Norfolk Street Railway 5s, 1944	100	106	...
United Railways 1st 4s, 1949	100	89¼	90
United Railways Inc. 4s, 1949	100	48	49
Seaboard 4s	100	70	70¼
Seaboard 10-year 5s	100	96¼	97
Seaboard 3-year 5s	100	87	87½
Lexington Railway 1st 5s	100	100	...
Macon Railway & Light Con. 5s	100	92	...
Georgia & Alabama Con. 5s	100	106	106¼

### Miscellaneous Bonds.

Mt. V. & Woodby's Cot. Duck 5s	100	59¼	60
G. B. & S. Brewing 1st 3-4s	100	47½	48
G. B. & S. Brewing 2d Income	100	15	17
U. B. & S. Light & Power 4½s	100	74	...
Consolidated Gas 6s, 1910	100	111½	113
Consolidated Gas 5s, 1929	100	113¼	...

### SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending May 25. Bid. Asked.

Abbeville Cotton Mills (S. C.)	60	71
Aiken Mfg. Co. (S. C.)	85	90
Anderson Cotton Mills (S. C.)	121	121
Arkwright Mills (S. C.)	106	106
Augusta Factory (Ga.)	72	75
Belton Mills (S. C.)	99	101¼
Brandon Mills (S. C.)	105	105
Buffalo Cotton Mills (S. C.)	102	102
Buffalo Cotton Mills (S. C.) Pfd.	92	92
Cabarrus Cotton Mills (N. C.)	122	122
Chillicothe Mfg. Co. (S. C.)	100	100
Clifton Cotton Mills (S. C.)	96	96
Clinton Cotton Mills (S. C.)	135	135
Courtenay Mfg. Co. (S. C.)	116	116
Columbus Mfg. Co. (Ga.)	89	89
Dallas Mfg. Co. (Ala.)	78	78
Darlington Mfg. Co. (S. C.)	90	92
Eagle & Phenix Mills (Ga.)	112¼	112¼
Easley Cotton Mills (S. C.)	102	102
Enoree Mfg. Co. (S. C.)	80	80
Enterprise Mfg. Co. (Ga.)	76	80
Exposition Cotton Mills (Ga.)	160	200
Gaffney Mfg. Co. (S. C.)	67	75
Gainesville Cotton Mills (Ga.)	75	75
Graniteville Mfg. Co. (S. C.)	132¼	132¼
Greenwood Cot. Mills (S. C.) old	102	102
Grendel Mills (S. C.)	100	102½
Henrietta Mills (N. C.)	190	200
King, John P., Mfg. Co. (Ga.)	85	90
Lancaster Cotton Mills (S. C.)	100	110
Lancaster Cot. Mills (S. C.) Pfd.	100	100
Langley Mfg. Co. (S. C.)	95	100
Laurens Cotton Mills (S. C.)	170	170
Lockhart Mills (S. C.)	102	102
Louisville Mills (N. C.)	100	100
Louisville Mills (N. C.) Pfd.	102	102
Marlboro Cotton Mills (S. C.)	100	100
Mills Mfg. Co. (S. C.)	100	100
Mills Mfg. Co. (S. C.) Pfd.	100	100
Monarch Cotton Mills (S. C.)	90	95
Monaghan Mills (S. C.)	100	106
Newberry Cotton Mills (S. C.)	111½	111½
Norris Cotton Mills (S. C.)	108	108
Odeh Mfg. Co. (N. C.)	100	100
Orangeburg Mfg. Co. (S. C.) Pfd.	102	102
Orr Cotton Mills (S. C.)	101	105
Pacolet Mfg. Co. (S. C.)	88	95
Pacolet Mfg. Co. (S. C.) Pfd.	97	97
Pelzer Mfg. Co. (S. C.)	180	180
Piedmont Mfg. Co. (S. C.)	185	185
Poe Mfg. Co., F. W. (S. C.)	104	104
Raleigh Cotton Mills (N. C.)	108	108
Roanoke Mills (N. C.)	102	102
Saxon Mills (S. C.)	100	102
Sibley Mfg. Co. (Ga.)	62½	65
Southern Cotton Mills (N. C.)	95	95
Tucapau Mills (S. C.)	141½	141½
Union Cotton Mills (S. C.)	145	150
Victor Mfg. Co. (S. C.)	132	132
Warren Mfg. Co. (S. C.)	101	103
Wash. Mfg. Co. (S. C.) Pfd.	106	106
Washington Mills (Va.)	20	20
Washington Mills (Va.) Pfd.	96	96
Wilmington Cot. Mills (N. C.) Pfd.	100	100
Woodruff Cotton Mills (S. C.)	93	93

### The New Cuban Loan.

Subscriptions to the new Cuban loan are to be opened in New York at 10 A. M., May 26, by Speyer & Co., 24-26 Pine street, and Harvey Fisk & Sons, 29 Nassau street. Simultaneously subscriptions will also be opened by Speyer Bros., in London, and by affiliated firms in Frankfurt and Amsterdam. This loan amounts to \$25,000,000 at 5 per cent., and runs for 40 years, the principal being due March 1, 1944. The bonds that have not been sold are to now be offered to the public at 97 and interest. Pending the delivery of the bonds, certificates will be

issued by Speyer & Co. Upon deciding to issue the new loan the republic of Cuba created a special permanent tax upon wines, liquors, etc., tobacco, sugar, playing cards and matches, and this tax for the first five months of its enforcement, ending March 31 last, yielded \$1,493,792. This tax, of course, is in addition to the government's pledge of good faith and credit, and the customs receipts of the republic for the nine months of the fiscal year up to March 31 yielded very nearly \$13,000,000, whereas for the entire fiscal year ended June 30 last the total was but \$14,638,454, thus showing a large increase, proportionately, for the first three-quarters of the current fiscal year. The retirement of the loan is to begin March 1, 1910, the sum of \$1,020,000 being applied annually for that purpose, bonds to be purchased at par or less, with interest; and if none can be purchased that way, bonds are to be drawn by lot and then paid for at par and interest. A special provision is made that should the customs receipts be insufficient the government will set aside whatever sum may be necessary to meet the interest and sinking-fund requirements of the loan.

### New Corporations.

The Bank of Morehead has begun business at Morehead, Miss.

The Bank of Florala has begun business at Florala, Ala.; capital \$25,000.

John M. Oliver is reported to be organizing the Orlando Co-operative Banking Co. at Orlando, Fla.

The First National Bank of Orlando, Fla., capital \$100,000, is reported organized by T. B. Beachman and others.

The Citizens' Bank of Ennis, Texas, has organized with the following officers: J. Baldrige, president; T. A. Ferris, vice-president; Fred Newton, cashier.

The Bank of Guntown, Lee county, Mississippi, capital \$30,000, has been approved. The incorporators are J. C. Price, C. B. Vance, T. S. Greene and others.

The First National Bank of Bolivar, Mo., capital \$25,000, has been approved. The organizers are C. W. Viles, Bolivar; R. B. Viles, Leslie Payne, W. A. Wilcox and L. C. Viles.

The conversion of the Farmers' State Bank of Mangum, O. T., into the City National Bank of Mangum is approved; capital \$25,000.

The conversion of the Krise Banking Co. of Lynchburg, Va., into the American National Bank of Lynchburg is approved; capital \$100,000.

The Cisco National Bank of Cisco, Texas, capital \$50,000, has been approved. The organizers are Wm. Bohning, Ranger, Texas; G. H. Bohning, C. F. Bohning, C. H. Fee and R. A. St. John.

The City National Bank of Purcell, I. T., capital \$25,000, has been approved. The organizers are George M. Norris, Purcell; J. A. Blanchard, B. C. Clark, J. H. Colby, Solon Curtice and others.

The Woods National Bank of San Antonio, Texas, capital \$200,000, has been approved. The organizers are John Woods, T. W. House, T. E. George, J. E. Adams, E. B. Flowers and others.

The Gates Banking & Trust Co. of Gates, Lauderdale county, Tennessee, capital \$12,500, has been incorporated by J. R. Conyers, J. E. McColpin, D. H. Cherry, Coleman Hafford and W. R. Miller.

The Coalgate National Bank of Coalgate, I. T., has been approved; capital \$50,000. The organizers are C. B. Burrows, Coalgate; Jas. McGennis, L. A. Conner, S. P. Ancker and J. S. Hume.

The Duncan National Bank of Duncan, I. T., capital \$30,000, has been approved. The organizers are F. W. Jarboe, W. W. Payne, J. D. Wade, John O'Neill, J. G.

Miller, W. A. Wade and H. L. Jarboe, Jr.

The Citizens' Investment Co. of Huntington, W. Va., has been incorporated, with \$10,000 capital, by Hugh G. Bowles, H. C. Gordon, T. W. Peyton, J. M. McCoach and J. B. Stevenson, all of Huntington.

The Pioneer Investment Co., capital \$2100, has been incorporated at St. Louis, Mo., by Robert H. Kobusch, Joseph Loewenberg and W. A. Kinnert, all of St. Louis; F. Albert Trebbe, East St. Louis, Illinois.

The Curtis Realty Co., capital \$4200, has been incorporated at St. Louis, Mo., by William C. Dewey, Memphis, Tenn.; Alice D. Macdonald, Webster Groves, Mo.; William H. H. Sears and Louise Curtis Dryden.

The First National Bank of Stanton, Texas, capital \$25,000, has applied for a charter. The organizers are J. P. Stone and E. H. Hamilton of Portales, N. M., and Paul Kona, Dr. J. M. Vance and J. B. Stokes of Stanton.

The Merchants' Exchange Bank of Humboldt, Tenn., has applied for a charter; capital \$50,000. The incorporators are M. B. Charles of Dyersburg, Ky.; T. V. Donovan, W. H. Mason, J. B. Stallings, H. H. Cozart and F. T. Cates of Humboldt.

The Shawnee Building & Loan Association of Shawnee, O. T., capital \$500,000, has been incorporated by F. B. Reed, S. T. Pierson, John Kieth, Donald R. Kieth, Israel Swope, J. J. England, Herbert S. Crane, A. M. Coffin, C. J. Baugh and J. M. Sellers.

The Citizens' National Bank of Meridian, Miss., capital \$150,000, has organized by electing officers as follows: W. A. Brown, president; H. M. Street, first vice-president; J. E. Reed, second vice-president; W. G. Simpson, cashier; Paul Brown, assistant cashier.

A new bank is reported organized with \$25,000 capital at White Plains, Ga., by C. C. King of that place, J. D. Walker of Sparta and others. The charter application is signed by J. D. Walker, C. C. King, Z. T. Walker, P. R. G. Clarke, George W. Tappan, Randolph Tappan, Edward Lewis, R. L. Jernigan and S. H. Sibley.

The Citizens' Bank of Shelby, Miss., has organized by electing the following officers: Hugh Connell, president; Dr. J. R. Murnan, vice-president, and L. B. Wilkinson, cashier; directors, W. E. Meek of Clarksdale, Miss.; C. S. Crawford of Leitchfield, Ky.; L. B. Wilkinson of Duncan, Miss., and John W. Thomas, Dr. J. R. Murnan, T. S. Meek, J. R. Henderson, C. T. Jacobs and Hugh Connell of Shelby, Miss.

The Habersham Bank has been chartered at Clarksville, Ga. The officers are Dr. E. P. West, president; Dr. J. K. Burns, vice-president; W. R. Asbury, cashier; J. E. Stewart, assistant cashier. E. P. West, W. P. Furr, F. L. Asbury, Robert McMillan and W. R. Asbury are directors and Robert McMillan, attorney.

The First National Bank of Berryville, Va., capital \$25,000, has organized by electing officers as follows: President, Charles M. Broun; vice-president, Charles Mullikin; cashier, James W. Foley; directors, W. W. Bowles, Decatur Osburn, C. J. Rixey, Frank McCormick, Louis Scheur, R. H. Lynn, C. A. Ford and J. F. Lindsay.

### New Securities.

Amarillo, Texas.—The attorney-general has approved \$50,000 of Potter county 4 per cent. 5-40 courthouse and jail bonds.

Annapolis, Md.—The board of public works has decided to issue \$825,000 of 3 per cent. public-building bonds.

Anson, Texas.—The attorney-general has approved \$15,000 of 4 per cent. 10-40 Jones county jail bonds.

Augusta, Ga.—The Augusta Union Station Co. will meet on June 10 to consider a proposition to issue \$250,000 of bonds.

Baltimore, Md.—The Consolidated Gas Co. proposes to issue \$15,000,000 of 50-year 4½ per cent. bonds. Of this amount \$1,000,000 have been sold to a syndicate, \$7,000,000 are reserved to retire the outstanding 5 and 6 per cent. bonds and \$1,500,000 to retire outstanding certificates of indebtedness. The balance will be reserved for improvements. The \$1,000,000 sold represents expenditures already made or to be made soon.

Cheraw, S. C.—Bids will be received until noon on June 15 for \$12,000 of 6 per cent. 30-year school bonds. F. A. Waddill, chairman of the school trustees, may be addressed.

Chesapeake City, Md.—Bids are to be opened on May 21 for \$5000 of Chesapeake City 5 per cent. bonds. Geo. K. Houck is treasurer.

Cuero, Texas.—The State board of education has purchased \$9000 of Cuero City Hall bonds.

Front Royal, Va.—An election will be held May 26 to vote on \$15,000 of 5 per cent. electric-light bonds.

Gulfport, Miss.—The city has sold \$20,000 of 6 per cent. school bonds to the Trowbridge & Niver Co. of Chicago at \$20,675.

Helena, Ark.—The city has sold \$155,000 of 5 per cent. refunding bonds to M. W. Harris & Co. of Chicago at par.

Houston, Texas.—A plan to issue \$100,000 of school bonds is under consideration.

Houston, Texas.—The court has approved the issue of \$350,000 of receiver's certificates by the Kirby Lumber Co., which are to be secured by mortgage.

Knoxville, Tenn.—An election is to be held to vote on about \$700,000 of water bonds and \$400,000 of bonds for fire department, schools, streets, etc.

Lampasas, Texas.—Lampasas county has registered \$9000 of courthouse and jail refunding bonds.

Lexington, Ky.—The Bluegrass Traction Co. of Lexington has filed a mortgage to secure \$700,000 of 5 per cent. gold bonds. A. S. Rice, vice-president of the Equitable National Bank of Cincinnati, is secretary and treasurer of the company.

McKinney, Texas.—An election will be held June 14 to vote on \$8000 of electric-light bonds.

New York, N. Y.—The stockholders of the Virginia-Carolina Chemical Co. have approved the proposed issue of \$8,000,000 of preferred stock, and will, it is stated, issue \$6,000,000 immediately.

North Wilkesboro, N. C.—The city has voted to issue \$32,000 of water-works and sewerage bonds.

Oxford, Miss.—A movement is under way to issue electric-light and school bonds.

Richmond, Va.—Bids will be received until June 6 at noon for \$353,740 of city bonds at 4 per cent. N. D. Hargrove is chairman of the finance committee.

Rockville, Md.—Montgomery county is to issue \$28,000 of 4 per cent. school bonds and \$2000 of 5 per cent. road bonds.

San Angelo, Texas.—The city proposes to issue \$20,000 4 per cent. 40-year bonds for public-school improvements.

Springfield, Tenn.—The sale of \$35,000 of 20-year water-works and electric-light bonds, to be issued June 1, 1904, to Rudolph Kleybolte & Co. of Cincinnati, has been ratified by the mayor and board of aldermen.

Stratford, Texas.—The board of education has purchased \$5000 of Stratford school bonds.

Taylor, Texas.—The city will sell \$25,000 of City Hall bonds.

Tifton, Ga.—An election is to be held June 22 to vote on \$20,000 of 5 per cent. 20-year school bonds.

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Upper Marlboro, Md.—The county proposes to issue and sell \$10,000 of school bonds.

### Financial Notes.

The Bank of South Hill, Va., has, it is reported, more than doubled its capital stock.

The Bank of Statesboro, at Statesboro, Ga., has increased its capital from \$50,000 to \$75,000.

The Farmers' State Bank of Mangum, O. T., has increased its capital from \$20,000 to \$25,000.

Comanche county, Texas, has redeemed \$1000 of its bonds, and Gonzales county has redeemed \$5000 of bonds.

A report from St. Louis, Mo., says that the Mercantile Trust Co. has absorbed the American Central Trust Co.

The stockholders of the Lexington City Bank of Lexington, Ky., have voted to increase the capital from \$300,000 to \$400,000. James S. Stoll is president.

A dispatch from Muskogee says that the Citizens' Bank of Checotah, I. T., has purchased the Citizens' Bank of Oktaha, I. T., and that they have been consolidated under the name of the former.

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